



STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES &
ENVIRONMENTAL CONTROL
DIVISION OF WATER RESOURCES
89 KINGS HIGHWAY
DOVER, DELAWARE 19901

WETLANDS & SUBAQUEOUS
LANDS SECTION

TELEPHONE (302) 739-9943
FACSIMILE (302) 739-6304

Delaware Department of Transportation
c/o Ms. Therese Fulmer
800 Bay Road
P.O. Box 778
Dover, Delaware 19903

DEC - 8 2006

Dear Terry:

Enclosed are the Subaqueous Lands Lease, Water Quality Certification and Wetlands Permit granted by the State of Delaware for ramp construction at the State Route 1 and Interstate 95 interchange and for widening of the mainline of Interstate 95 in New Castle County, Delaware.

Prior to any work being completed, please read carefully all the Special and General Conditions contained within the permits. The permittee is responsible to ensure that all the conditions, responsibilities and requirements of the permits are strictly observed.

If you have any questions, please feel free to contact this office at (302) 739-9943.

Sincerely,

Laura M. Herr
Program Manager
Wetlands & Subaqueous
Lands Section

Enclosures

RECEIVED

DEC 18 2006

RUMMEL, KLEPPER & KAHL, LLP



WETLANDS & SUBAQUEOUS
LANDS SECTION

STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES &
ENVIRONMENTAL CONTROL
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Delaware Department of Transportation
c/o Ms. Therese Fulmer
800 Bay Road
P.O. Box 778
Dover, Delaware

Subaqueous Lands Permit: SP-014/06
Associated Permits:
- Wetlands Permit: WE-388/06
- Water Quality Certification: WQ-389/06
Date of Issuance: 12/8/06
Construction Expiration Date: 12/8/2011
Amended Date:

**SUBAQUEOUS LANDS PERMIT
GRANTED TO THE DELAWARE DEPARTMENT OF TRANSPORTATION
TO PERFORM THE FOLLOWING ACTIVITIES IN TRIBUTARIES OF THE CHRISTINA
RIVER FOR RAMP CONSTRUCTION
AT THE STATE ROUTE 1 AND THE INTERSTATE 95 INTERCHANGE
IN CHRISTIANA, NEW CASTLE COUNTY, DELAWARE:**

1. The modification of a concrete channel tributary to the Christina River to include
 - the reconstruction of approximately 220 linear feet of concrete channel by placing 220 cubic yards of stone rip-rap in 1,980 square feet of subaqueous lands and backfilling with natural stream channel material, and
 - the temporary placing of erosion and sediment control in 358 square feet of subaqueous lands;
2. Impacts to tributaries of the Christina River for the construction and modification of interchange ramps to include
 - the filling of 492 square feet of subaqueous lands with 6 cubic yards of fill material at Ramp S,
 - the filling of 119 square feet of subaqueous lands with 21 cubic yards of fill material and the temporary placing of 145 square feet of sediment and erosion control at Ramp U1,
 - the filling of 227 square feet of subaqueous lands with 233 cubic yards of material at Ramp G1, and
 - the placing of 40 cubic yards of stone rip-rap in 620 square feet of subaqueous lands and the temporary placing of 216 square feet of sediment and erosion control at Ramp G2;

**AND TO PERFORM THE FOLLOWING ACTIVITIES
IN THE CHRISTINA RIVER AND TRIBUTARIES TO THE CHRISTINA RIVER
FOR THE WIDENING OF THE INTERSTATE 95 MAINLINE
BETWEEN SR1 AND AIRPORT ROAD, EAST OF CHRISTIANA,
IN NEW CASTLE COUNTY, DELAWARE:**

1. The widening of the I-95 Bridge over the Christina River by 29.5 feet to include
 - the placing of 16 piles, filling 900 square feet of subaqueous lands,

Delaware's good nature depends on you!

- the filling of 897 square feet of subaqueous lands with 1,661 cubic yards of fill material for the construction of abutments, and
 - the temporary placing of turbidity curtains and sediment and erosion control in 234 square feet of subaqueous lands;
2. Impacts to tributaries of the Christina River associated with the widening of Interstate 95 to include
 - the filling of 14,380 square feet of subaqueous lands with 1,116 cubic yards of fill material, the placing of 237 cubic yards of stone riprap in 2,657 square feet of subaqueous lands, and the temporary impact of 2,362 square feet of subaqueous lands for sediment and erosion control, on the south side of Interstate 95, and
 - the filling of 50 square feet of subaqueous lands with 21 cubic yards of fill material, the placing of 24 cubic yards of stone rip-rap in 368 square feet of subaqueous land, and the temporary impact of 1,601 square feet of subaqueous lands for sediment and erosion control on the north side of Interstate 95.
 3. The modification of a channel tributary to Churchman's Marsh at Station 129+00L to include
 - the placement of 113 cubic yards of stone rip-rap in 1,721 square feet of subaqueous lands and backfilling with natural stream channel material, and
 - the temporary impact of 40 square feet of subaqueous lands for erosion and sediment control.

Pursuant to the provisions of 7 Del. C. 7203, and the Department's Regulations Governing the Use of Subaqueous Lands, permission is hereby granted on this 8th day of December A.D. 2006 to construct the above referenced project in accordance with the approved plans (14 Sheets) as approved on November 21, 2006; and the application dated November 22, 2005 and received by this Division on January 9, 2006, with additional information received May 31, 2006, September 19, 2006 and October 10, 2006.

Whereas, pursuant to the provisions of 7 Del. C. 7203, the Secretary of the Department of Natural Resources and Environmental Control through his duly authorized representatives finds that it is not contrary to the public interest if this project is approved subject to the terms and conditions herein set forth.

This Permit is issued subject to the following conditions:

SPECIAL CONDITIONS

1. The conditions contained herein shall be included as part of the main body of the construction contract and other ancillary documents associated with earth disturbance and any other activities directly or indirectly associated with construction which may impact wetlands or subaqueous lands associated with this project. The permittee and contractor are responsible to ensure that the workers executing the activities authorized by this Permit have full knowledge of, and abide by, the terms and conditions of this Permit.
2. Construction shall be undertaken so as not to violate the State of Delaware Department of Natural Resources and Environmental Control "Surface Water Quality Standards," as amended July, 2004.

3. **In order to avoid impact to anadromous fish, no work shall be undertaken in the Christina River from April 1 through May 31 of any given year.**
4. There shall be no movement of equipment within State regulated wetlands or subaqueous lands not specifically authorized by this Permit. The disturbance of wetlands and subaqueous lands authorized by this Permit shall be limited to the areas identified in the approved plans. Any equipment traversing wetlands and subaqueous lands as may be authorized by this Permit shall be supported on mats.
5. All regulated areas temporarily impacted pursuant to this authorization shall be returned to pre-disturbance elevation and conditions, and planted with appropriate native vegetation.
6. **Mitigation Requirements for the impacts authorized by Water Quality Certification - WQ-389/06, Wetlands Permit - WE-388/06 and Subaqueous Lands Permit - SP-014/06:**

Permanent impacts to jurisdictional wetlands include 0.09 acres of forested wetlands, 0.09 acres of shrub/scrub wetlands, and 0.59 acres of emergent wetland. As compensation for impacts, wetlands and waters shall be created with the following compensation ratios: 2:1 for the forested and scrub/shrub wetlands, 1:1 for the emergent wetlands and 1:1 for tidal waters of the United States. The wetland compensation shall include the construction of a tidally influenced freshwater wetland complex consisting of 0.18 acres of forested wetlands, 0.18 acres of shrub/scrub wetlands, and 0.59 acres of emergent wetlands at the Cathcart site. The Cathcart site is located immediately north of I-95 and east of the Christina River and Churchmans Marsh near Newport, Delaware.

Permanent impacts to tidal open waters, consisting 0.02 acres of tidal waters of impacted channels, shall be mitigated on a 1:1 basis at the Cathcart Mitigation site. Permanent impact to drainage ditches shall be compensated by in-kind replacement.

Mitigation for wetland and tidal water impacts shall be completed in accordance with the plans titled "Delaware River and Bay Authority, Contract No. DMB-04-01, Mitigation Site (Cathcart Property)," 12 sheets, prepared by Rummel, Klepper & Kahl, dated September 2006 and October 2006.

All wetland and water compensation sites shall be monitored with the "Cathcart Wetland Mitigation Site Tidal Wetland Monitoring Performance Standards," received by the Wetland and Subaqueous Lands Section on September 19, 2006. Status reports of the compensation site shall be submitted annually to this Department for a period of five years. Success of the wetland mitigation area shall be based on the criteria identified in the "Cathcart Wetland Mitigation Site Tidal Wetland Monitoring Performance Standards." If the expected densities and suitable plant materials are not established within the mitigation area, corrective activities may be required including, but not limited to, replanting, regrading and/or removal of undesirable vegetation. Additional monitoring may also be required.

The grass seeding completed at the Cathcart site shall be completed in accordance with the specification titled "Grass Seeding in Freshwater Tidal Wetland," received by the Wetlands and Subaqueous Lands Section on September 19, 2006.

7. In order to protect migratory birds, surveys for nesting birds on the bridges must be completed prior to construction. If a survey detects a substantial number of active nests, impacts shall be avoided by performing construction activities from August 1 through April 15. A decision on what constitutes a "substantial number of active nests" shall be determined by the Delaware Natural Heritage program. Deterrents to nesting, such as mesh netting that fully encapsulates the underside of the bridge, may be placed prior to nesting season, which begins around April 15th and left in place until construction begins.
8. The channels, identified as impact area O5 on Sheet 11 and O10 on Sheet 20 of the approved plans, shall be backfilled with native salvaged bed materials. The banks of these channels shall be stabilized with topsoil and planted with native species above the Ordinary High water line.
9. There shall be no clearing or grubbing in the areas with the extended limits of construction (Sheets 18, 19, and 20 and of the approved Subaqueous Lands plans), unless slope stabilization is required. There shall be stockpiling or storage of equipment or materials within these areas.
10. All construction debris, excavated material, brush, rocks and refuse incidental to such work shall be placed above the influence of surface waters and appropriately contained at all times to prevent its entry into surface water or wetlands. All such material shall be reused, removed or properly disposed.
11. Disturbance of wetlands and/or aquatic vegetation adjacent to the permitted construction by burning, cutting, herbicide treatments, heavy equipment or other methods is prohibited.
12. All fill material associated with the proposed project and included in the above-referenced plans shall be clean and free from oils, grease, asphalt and other contaminants.
13. There shall be no stockpiling of construction material in regulated wetlands or subaqueous lands.
14. Erosion and sediment control measures shall be implemented in accordance with the specification and criteria in the current Delaware Erosion and Sediment Control Handbook, so as to minimize entry and dispersal of sediment and other contaminants in surface waters.
15. The permittee shall employ measures during construction to prevent spills of fuels or lubricants. In the event of a spill, efforts shall be taken to prevent its entry into wetlands and aquatic areas. Any spills entering wetlands and aquatic areas shall be removed immediately. This office shall be notified of any spill(s) within six hours of occurrence. This office will determine the effectiveness of spill and contamination removal and specify remediation as necessary.

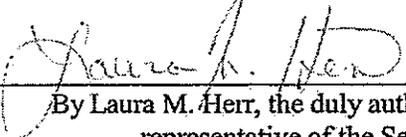
16. The construction in subaqueous lands is authorized for the explicit purpose of widening the mainline of Interstate 95 between State Route 1 and Airport Road and the construction of interchange improvement at Interstate 95 and State Route 1.
17. A copy of this Permit and the approved plans must be available on-site during all phases of construction activity.
18. The work authorized by this Permit is subject to the terms and conditions of the Department of the Army Individual Permit.

GENERAL CONDITIONS

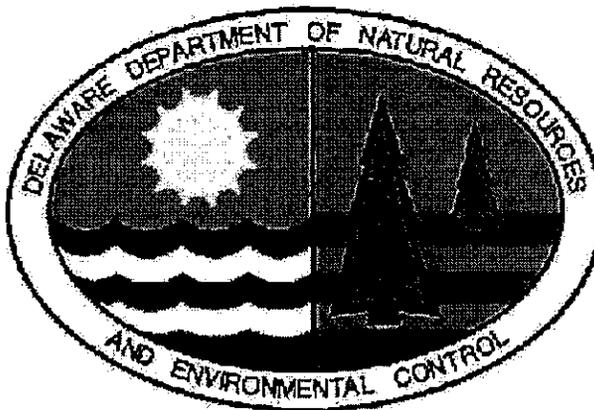
1. The project is to be undertaken in accordance with the plans submitted and attached hereto. Any activities not specifically authorized herein may require a supplemental approval from this office prior to the initiation of construction. A determination on the need for a supplemental approval will be made by this office pursuant to the permittee submitting written notification and revised plans indicating project changes to this office.
2. Representatives of the Department of Natural Resources and Environmental Control may inspect such work during any phase of the construction and may collect any samples or conduct any tests that are deemed necessary.
3. This Permit does not cover the structural stability of the project units.
4. Any actions, operations or installations which are considered by the Department to be contrary to the best interests of the public shall constitute reason for the discontinuance and/or removal of said action, operation or installation.
5. The issuance of this Permit does not imply approval of any other part, phase, or portion of any overall project the permittee may be contemplating.
6. This Permit is subject to the terms and conditions contained in any easement, license or lease that may have been granted by the State or any political subdivision, board, commission or agency of the State in the vicinity of the project.
7. This Permit is granted for the purposes as stated herein. Any other use without prior approval shall constitute reason for this Permit being revoked.
8. This Permit shall expire if the project has not been completed within five (5) years from the date of issuance.
9. If the permittee considers five (5) years insufficient for completion of the project, the permittee may submit a project time schedule for consideration by the Department. If the time schedule is approved it shall be attached hereto and made a part hereof.

10. The permittee shall notify the Department of Natural Resources and Environmental Control within ten (10) days of the date work will be commenced.
11. This Permit is personal and may not be transferred without the prior written consent of the Department. Prior to the transfer of the adjacent upland property, the permittee shall obtain the written consent of the Department to transfer this Permit to the new upland property owner. Failure to obtain such written consent may result in the revocation of this Permit and the removal of all structures authorized by this Permit at the expense of the permittee.
12. The permittee shall at all times comply with all applicable laws and regulations of the Department of Natural Resources and Environmental Control.
13. The issuance of this Permit does not constitute approval for any of the activities as may be required by any other local, State or federal governmental agency.
14. This Permit may be revoked upon violation of any of the above conditions.

IN WITNESS WHEREOF, I, Laura M. Herr, the duly authorized representative of John A. Hughes, Secretary, Department of Natural Resources and Environmental Control, have hereunto set my hand and seal this 9th day of December, 2004



By Laura M. Herr, the duly authorized
representative of the Secretary of the
Department of Natural Resources and
Environmental Control



**DEPARTMENT OF NATURAL RESOURCES
AND
ENVIRONMENTAL CONTROL**

NOTICE OF AUTHORIZATION

Permit/Lease No. and Description: SP-014/06 To perform the following activities in tributaries of the Christina River for ramp construction at the State Route 1 and the Interstate 95 Interchange in Christiana, New Castle County, Delaware:

1. The modification of a concrete channel tributary to the Christina River to include
 - the reconstruction of approximately 220 linear feet of concrete channel by placing 220 cubic yards of stone rip-rap in 1,980 square feet of subaqueous lands and backfilling with natural stream channel material, and
 - the temporary placing of erosion and sediment control in 358 square feet of subaqueous lands;
2. Impacts to tributaries of the Christina River for the construction and modification of interchange ramps to include
 - the filling of 492 square feet of subaqueous lands with 6 cubic yards of fill material at Ramp S,
 - the filling of 119 square feet of subaqueous lands with 21 cubic yards of fill material and the temporary placing of 145 square feet of sediment and erosion control at Ramp U1,
 - the filling of 227 square feet of subaqueous lands with 233 cubic yards of material at Ramp G1, and
 - the placing of 40 cubic yards of stone rip-rap in 620 square feet of subaqueous lands and the temporary placing of 216 square feet of sediment and erosion control at Ramp G2;

**AND TO PERFORM THE FOLLOWING ACTIVITIES
IN THE CHRISTINA RIVER AND TRIBUTARIES TO THE CHRISTINA RIVER
FOR THE WIDENING OF THE INTERSTATE 95 MAINLINE
BETWEEN SRI AND AIRPORT ROAD, EAST OF CHRISTIANA,
IN NEW CASTLE COUNTY, DELAWARE:**

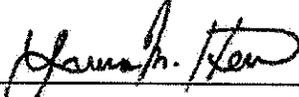
1. The widening of the I-95 Bridge over the Christina River by 29.5 feet to include
 - the placing of 16 piles, filling 900 square feet of subaqueous lands,
 - the filling of 897 square feet of subaqueous lands with 1,661 cubic yards of fill material for the construction of abutments, and
 - the temporary placing of turbidity curtains and sediment and erosion control in 234 square feet of subaqueous lands;
2. Impacts to tributaries of the Christina River associated with the widening of Interstate 95 to include
 - the filling of 14,380 square feet of subaqueous lands with 1,116 cubic yards of fill material, the placing of 237 cubic yards of stone riprap in 2,657 square feet of subaqueous lands, and the temporary impact of 2,362 square feet of subaqueous lands for sediment and erosion control, on the south side of Interstate 95, and
 - the filling of 50 square feet of subaqueous lands with 21 cubic yards of fill material, the placing of 24 cubic yards of stone rip-rap in 368 square feet of subaqueous land, and the temporary impact of 1,601 square feet of subaqueous lands for sediment and erosion control on the north side of Interstate 95.
3. The modification of a channel tributary to Churchman's Marsh at Station 129+00L to include
 - the placement of 113 cubic yards of stone rip-rap in 1,721 square feet of subaqueous lands and backfilling with natural stream channel material, and
 - the temporary impact of 40 square feet of subaqueous lands for erosion and sediment control.

Issued to: DELAWARE DEPARTMENT OF TRANSPORTATION

Location of Work: Same as above

Date of Expiration: 12/ 08 /2011

**DISPLAY THIS CERTIFICATE IN A
HIGHLY VISIBLE LOCATION ON THE JOB SITE.**



**Laura M. Herr, Program Manager
Wetlands & Subaqueous Lands Section**



WETLANDS & SUBAQUEOUS
LANDS SECTION

STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES &
ENVIRONMENTAL CONTROL
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Delaware Department of Transportation
c/o Ms. Therese Fulmer
800 Bay Road
P.O. Box 778
Dover, Delaware

Water Quality Certification: WQ-389/06

Associated Permits:

- Wetlands Permit: WE-388/06

- Subaqueous Lands Permit: SP-014/06

Date of Issuance: 12/8/06

Construction Expiration Date: 12/8/2011

Amended Date:

**WATER QUALITY CERTIFICATION
GRANTED TO THE DELAWARE DEPARTMENT OF TRANSPORTATION**

For highway construction

**at the State Route 1/Interstate-95 Interchange and
along the I-95 mainline from the SR 1/I-95 Interchange to the State Route 141 bridge crossing,
continuing along the I-95 /I-295 split to the I-95/I-495 interchange
in non-tidal and tidal wetlands and waterways within the Christina River and
the White Clay Creek watersheds, in New Castle County, Delaware**

TO INCLUDE THE FOLLOWING IMPACTS:

- The placement of 12,684 cubic yards of fill material and riprap into 2.09 acres of waters of the United States, including 0.09 acres of forested wetlands, 0.09 acres of shrub/scrub wetlands, 0.59 acres of emergent wetland, 0.02 acres of tidal waters, and 1.30 acres of intermittent streams; and
- The temporary impact of 0.48 acres of waters of the United States for erosion and sediment control, including of 0.19 acres of forested wetlands, 0.11 acres of shrub/scrub wetlands, 0.13 acres of emergent wetlands, 0.04 acres of tidal waters and 0.01 acres of intermittent streams.

Pursuant to the provisions of Section 401 of the Clean Water Act, permission is hereby granted on this 8th day of December A.D. 2006 to construct the above-referenced project in accordance with the approved plans (22 Sheets) as approved on November 21, 2006; and the application dated November 30, 2005 and received by this Division on January 11, 2006, with additional information received May 31, 2006, July 31, 2006, September 19, 2006 and October 10, 2006.

Whereas, pursuant to the provisions of Section 401 of the Clean Water Act, the Secretary of the Department of Natural Resources and Environmental Control through his duly authorized representative finds that it is not contrary to the public interest if this project is approved subject to the terms and conditions herein set forth.

Delaware's good waters depend on you!

Whereas, in accordance with Section 401 of the Clean Water Act, the State of Delaware, by and through the Department of Natural Resources and Environmental Control, certifies that the permitted activity will be conducted in a manner which will not violate the applicable water quality standards of the State of Delaware, subject to the terms and conditions of this approval.

This Certification is issued subject to the following conditions:

SPECIAL CONDITIONS

1. The conditions contained herein shall be included as part of the main body of the construction contract and other ancillary documents associated with earth disturbance and any other activities directly or indirectly associated with construction which may impact wetlands or subaqueous lands associated with this project. The permittee and contractor are responsible to ensure that the workers executing the activities authorized by this Certification have full knowledge of, and abide by, the terms and conditions of this Certification.
2. Construction shall be undertaken so as not to violate the State of Delaware Department of Natural Resources and Environmental Control "Surface Water Quality Standards," as amended July 11, 2004.
3. There shall be no movement of equipment within regulated wetlands or subaqueous lands not specifically authorized by this Certification. The disturbance of wetlands and subaqueous lands authorized by this Certification shall be limited to the areas identified in the approved plans. Any equipment traversing wetlands and open waters as authorized by this Certification shall be supported on mats.
4. **In order to avoid impacts to anadromous fish, no work shall be undertaken in the Christina River from April 1 through May 30 of any given year.**
5. All regulated areas temporarily impacted pursuant to this authorization shall be returned to pre-disturbance elevation and conditions, and planted with appropriate native vegetation.
6. **The channels, identified as impact area O7 on Sheet 12 and O21 on Sheet 21 of the approved plans, shall be backfilled with native salvaged bed materials. The banks of these channels shall be stabilized with topsoil and planted with native species above the Ordinary High water line.**
7. Mitigation Requirements for the impacts authorized by Water Quality Certification - WQ-389/06, Wetlands Permit - WE-388/06 and Subaqueous Lands Permit - SP-014/06:

Permanent impacts to jurisdictional wetlands include 0.09 acres of forested wetlands, 0.09 acres of shrub/scrub wetlands, and 0.59 acres of emergent wetland. As compensation for impacts, wetlands and waters shall be created with the following compensation ratios: 2:1 for the forested and scrub/shrub wetlands, 1:1 for the emergent wetlands and 1:1 for tidal waters of the United States. The wetland compensation shall include the construction of a tidally influenced freshwater

wetland complex consisting of 0.18 acres of forested wetlands, 0.18 acres of shrub/scrub wetlands, and 0.59 acres of emergent wetlands at the Cathcart site. The Cathcart site is located immediately north of I-95 and east of the Christina River and Churchmans Marsh near Newport, Delaware.

Permanent impacts to tidal open waters, consisting 0.02 acres of tidal waters of impacted channels, shall be mitigated on a 1:1 basis at the Cathcart Mitigation site. Permanent impact to drainage ditches shall be compensated by in-kind replacement.

Mitigation for wetland and tidal water impacts shall be completed in accordance with the plans titled "Delaware River and Bay Authority, Contract No. DMB-04-01, Mitigation Site (Cathcart Property)," 12 sheets, prepared by Rummel, Klepper & Kahl, dated September 2006 and October 2006.

All wetland and water compensation sites shall be monitored with the "Cathcart Wetland Mitigation Site Tidal Wetland Monitoring Performance Standards," received by the Wetland and Subaqueous Lands Section on September 19, 2006. Status reports of the compensation site shall be submitted annually to this Department for a period of five years. Success of the wetland mitigation area shall be based on the criteria identified in the "Cathcart Wetland Mitigation Site Tidal Wetland Monitoring Performance Standards." If the expected densities and suitable plant materials are not established within the mitigation area, corrective activities may be required including, but not limited to, replanting, regrading and/or removal of undesirable vegetation. Additional monitoring may also be required.

The grass seeding completed at the Cathcart site shall be completed in accordance with the specification titled "Grass Seeding in Freshwater Tidal Wetland," received by the Wetlands and Subaqueous Lands Section on September 19, 2006.

8. **In order to protect nesting migratory birds, surveys for nesting birds on the bridges must be completed prior to construction. If a survey detects a substantial number of active nests, impacts shall be avoided by performing construction activities from August 1 through April 15. A decision on what constitutes a "substantial number of active nests" shall be determined by the Delaware Natural Heritage program. Deterrents to nesting, such as mesh netting that fully encapsulates the underside of the bridge, may be placed no later than April 15th and left in place until construction begins.**
9. There shall be no clearing or grubbing in the areas with the extended limits of construction (Sheets 19, 20 and 21 of the approved plans), unless slope stabilization is required. There shall be stockpiling or storage of equipment or materials within these areas.
10. There shall be no stockpiling of construction material in regulated wetlands or waters.
11. There shall be no movement of equipment within regulated wetlands or waters not specifically authorized by this Permit. The disturbance of wetlands and waters authorized by this Permit shall be limited to the areas identified in the approved plans. Any equipment traversing wetlands and open waters as may be authorized by this Permit shall be supported on mats.

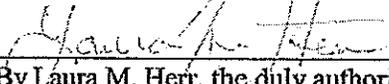
12. Disturbance of wetlands and/or aquatic vegetation adjacent to the permitted construction by burning, cutting, herbicide treatments, heavy equipment or other methods is prohibited.
13. All construction debris, excavated material, brush, rocks and refuse incidental to such work shall be placed above the influence of surface waters and appropriately contained at all times to prevent its entry into surface water or wetlands. All such material shall be reused, removed or properly disposed.
14. All fill material associated with the proposed project and included in the above-referenced plans shall be clean and free from oils, grease, asphalt and other contaminants.
15. Erosion and sediment control measures shall be implemented in accordance with the specification and criteria in the current Delaware Erosion and Sediment Control Handbook, so as to minimize entry and dispersal of sediment and other contaminants in surface waters.
16. The permittee shall employ measures during construction to prevent spills of fuels or lubricants. In the event of a spill, efforts shall be taken to prevent its entry into wetlands and waters. Any spills entering wetlands and waters shall be removed immediately. This office shall be notified of any spill(s) within six hours of occurrence. This office will determine the effectiveness of spill and contamination removal and specify remediation as necessary.
17. This construction is authorized for explicit purpose of the highway construction as described in the Water Quality Certification application.
18. A copy of this Certification must be available on-site during all phases of construction activity.
19. The work authorized by this Permit is subject to the terms and conditions of the Department of the Army Individual Permit.

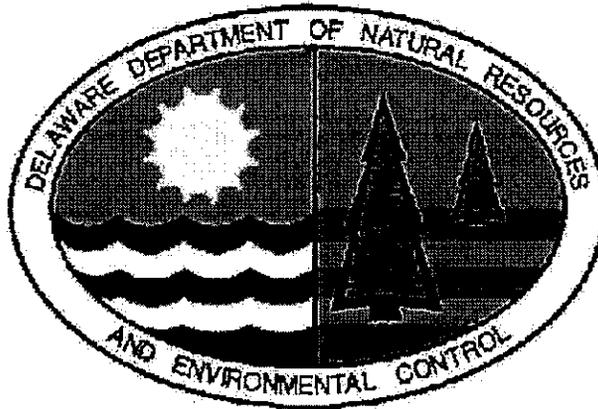
GENERAL CONDITIONS

1. The project is to be undertaken in accordance with the plans submitted and attached hereto. Any activities not specifically authorized herein may require a supplemental approval from this office prior to the initiation of construction. A determination on the need for a supplemental approval will be made by this office pursuant to the permittee submitting written notification and revised plans indicating project changes to this office.
2. Representatives of the Department of Natural Resources and Environmental Control may inspect such work during any phase of the construction and may collect any samples or conduct any tests that are deemed necessary.
3. This Certification does not cover the structural stability of the project units.
4. Any actions, operations or installations which are considered by the Department to be contrary to the best interests of the public shall constitute reason for the discontinuance and/or removal of said action, operation or installation.

5. The issuance of this Certification does not imply approval of any other part, phase, or portion of any overall project the permittee may be contemplating.
6. This Certification is subject to the terms and conditions contained in any easement, license or lease that may have been granted by the State or any political subdivision, board, commission or agency of the State in the vicinity of the project.
7. This Certification is granted for the purposes as stated herein. Any other use without prior approval shall constitute reason for this Certification being revoked.
8. This Certification shall expire if the project has not been completed within five (5) years from the date of issuance.
9. If the permittee considers five (5) years insufficient for completion of the project, the permittee may submit a project time schedule for consideration by the Department. If the time schedule is approved it shall be attached hereto and made a part hereof.
10. The permittee shall notify the Department of Natural Resources and Environmental Control within ten (10) days of the date work will be commenced.
11. This Certification is personal and may not be transferred without the prior written consent of the Department. Prior to the transfer of the adjacent upland property, the permittee shall obtain the written consent of the Department to transfer this Certification to the new upland property owner. Failure to obtain such written consent may result in the revocation of this Certification and the removal of all structures authorized by this Certification at the expense of the permittee.
12. The permittee shall at all times comply with all applicable laws and regulations of the Department of Natural Resources and Environmental Control.
13. The issuance of this Certification does not constitute approval for any of the activities as may be required by any other local, state or federal governmental agency.
14. This Certification may be revoked upon violation of any of the above conditions.

IN WITNESS WHEREOF, I, Laura M. Herr, the duly authorized representative of John A. Hughes, Secretary, Department of Natural Resources and Environmental Control, have hereunto set my hand this 15th day of December, 2006.


By Laura M. Herr, the duly authorized
representative of the Secretary of the
Department of Natural Resources and
Environmental Control



**DEPARTMENT OF NATURAL RESOURCES
AND
ENVIRONMENTAL CONTROL**

NOTICE OF AUTHORIZATION

Permit/Lease No. and Description: WQ-389/06:

For highway construction
at the State Route 1/Interstate-95 Interchange and
along the I-95 mainline from the SR 1/I-95 Interchange to the State Route 141 bridge crossing, continuing along the I-95 /I-295 split to the I-95/I-
495 interchange
in non-tidal and tidal wetlands and waterways within the Christina River and
the White Clay Creek watersheds, in New Castle County, Delaware

TO INCLUDE THE FOLLOWING IMPACTS:

- The placement of 12,684 cubic yards of fill material and riprap into 2.09 acres of waters of the United States, including 0.09 acres of forested wetlands, 0.09 acres of shrub/scrub wetlands, 0.59 acres of emergent wetland, 0.02 acres of tidal waters, and 1.30 acres of intermittent streams; and
- The temporary impact of 0.48 acres of waters of the United States for erosion and sediment control, including of 0.19 acres of forested wetlands, 0.11 acres of shrub/scrub wetlands, 0.13 acres of emergent wetlands, 0.04 acres of tidal waters and 0.01 acres of intermittent streams.

Issued to: DELAWARE DEPARTMENT OF TRANSPORTATION

Location of Work: Same as above

Date of Expiration: 12/ 08/2011

**DISPLAY THIS CERTIFICATE IN A
HIGHLY VISIBLE LOCATION ON THE JOB SITE.**



**Laura M. Herr, Program Manager
Wetlands & Subaqueous Lands Section**



STATE OF DELAWARE
DEPARTMENT OF NATURAL RESOURCES &
ENVIRONMENTAL CONTROL
DIVISION OF WATER RESOURCES
89 KINGS HIGHWAY
DOVER, DELAWARE 19901

WETLANDS & SUBAQUEOUS
LANDS SECTION

TELEPHONE (302) 739-9943
FACSIMILE (302) 739-6304

Delaware Department of Transportation
c/o Ms. Therese Fulmer
800 Bay Road
P.O. Box 778
Dover, Delaware

Wetlands Permit: WE-388/06

Associated Permits:

- Subaqueous Lands Permit: SP-014/06
- Water Quality Certification: WQ-389/06

Date of Issuance: 12/8/06

Construction Expiration Date: 12/8/2011

Amended Date:

**WETLANDS PERMIT
GRANTED TO THE DELAWARE DEPARTMENT OF TRANSPORTATION
TO PERFORM THE FOLLOWING ACTIVITIES
IN TIDAL WETLANDS IN THE CHRISTINA RIVER
FOR CONSTRUCTION OF THE INTERSTATE 95 BRIDGE
OVER THE CHRISTINA RIVER, LOCATED EAST OF CHRISTIANA,
IN NEW CASTLE COUNTY, DELAWARE:**

- To place 608 cubic yards of fill material in 3,522 square feet of tidal wetlands for bridge abutments; and
- To temporarily place turbidity curtains in 4,127 square feet of tidal wetlands.

Pursuant to the provisions of 7 Del. C. 6604, and the Department's Wetlands Regulations, permission is hereby granted on this 8th day of December A.D. 2006, to construct the above referenced project in accordance with the approved plans (1 Sheet) as approved on November 21, 2006; and the application dated November 30, 2005 and received by this Division on January 9, 2006, with additional information received May 31, 2006, September 19, 2006 and October 10, 2006.

WHEREAS, pursuant to the provisions of 7 Del. C. 6604, the Secretary of the Department of Natural Resources and Environmental Control finds that it is not contrary to the public interest if this project is approved subject to the terms and conditions herein set forth.

This Permit is issued subject to the following conditions:

Delaware's good nature depends on you!

SPECIAL CONDITIONS

1. The conditions contained herein shall be included as part of the main body of the construction contract and other ancillary documents associated with earth disturbance and any other activities directly or indirectly associated with construction which may impact wetlands or subaqueous lands associated with this project. The permittee and contractor are responsible to ensure that the workers executing the activities authorized by this Permit have full knowledge of, and abide by, the terms and conditions of this Permit.
2. Construction shall be undertaken so as not to violate the State of Delaware Department of Natural Resources and Environmental Control "Surface Water Quality Standards," as amended July 11, 2004.
3. **In order to avoid impact to anadromous fish, no work shall be undertaken in the Christina River from April 1 through May 30 of any given year.**
4. All regulated wetlands areas temporarily impacted pursuant to this authorization shall be returned to pre-disturbance elevation and conditions, and planted with native wetland vegetative cover.
5. Mitigation Requirements for the impacts authorized by Water Quality Certification - WQ-389/06, Wetlands Permit - WE-388/06 and Subaqueous Lands Permit - SP-014/06:

Permanent impacts to jurisdictional wetlands include 0.09 acres of forested wetlands, 0.09 acres of shrub/scrub wetlands, and 0.59 acres of emergent wetland. As compensation for impacts, wetlands and waters shall be created with the following compensation ratios: 2:1 for the forested and scrub/shrub wetlands, 1:1 for the emergent wetlands and 1:1 for tidal waters of the United States. The wetland compensation shall include the construction of a tidally influenced freshwater wetland complex consisting of 0.18 acres of forested wetlands, 0.18 acres of shrub/scrub wetlands, and 0.59 acres of emergent wetlands at the Cathcart site. The Cathcart site is located immediately north of I-95 and east of the Christina River and Churchmans Marsh near Newport, Delaware.

Permanent impacts to tidal open waters, consisting 0.02 acres of tidal waters of impacted channels, shall be mitigated on a 1:1 basis at the Cathcart Mitigation site. Permanent impact to drainage ditches shall be compensated by in-kind replacement.

Mitigation for wetland and tidal water impacts shall be completed in accordance with the plans titled "Delaware River and Bay Authority, Contract No. DMB-04-01, Mitigation Site (Cathcart Property)," 12 sheets, prepared by Rummel, Klepper & Kahl, dated September 2006 and October 2006.

All wetland and water compensation sites shall be monitored with the "Cathcart Wetland Mitigation Site Tidal Wetland Monitoring Performance Standards," received by the Wetland and Subaqueous Lands Section on September 19, 2006. Status reports of the compensation site shall be submitted annually to this Department for a period of five years. Success of the wetland mitigation area shall be based on the criteria identified in the "Cathcart Wetland Mitigation Site Tidal Wetland

Monitoring Performance Standards." If the expected densities and suitable plant materials are not established within the mitigation area, corrective activities may be required including, but not limited to, replanting, regrading and/or removal of undesirable vegetation. Additional monitoring may also be required.

The grass seeding completed at the Cathcart site shall be completed in accordance with the specification titled "Grass Seeding in Freshwater Tidal Wetland," received by the Wetlands and Subaqueous Lands Section on September 19, 2006.

6. In order to protect migratory birds, surveys for nesting birds on the bridges must be completed prior to construction. If a survey detects a substantial number of active nests, impacts shall be avoided by performing construction activities from August 1 through April 15. A decision on what constitutes a "substantial number of active nests" shall be determined by the Delaware Natural Heritage program. Deterrents to nesting, such as mesh netting that fully encapsulates the underside of the bridge, may be placed prior to nesting season, which begins around April 15th and left in place until construction begins.
7. There shall be no movement of equipment within regulated wetlands or subaqueous lands not specifically authorized by this Permit. The disturbance of wetlands and subaqueous lands authorized by this Permit shall be limited to the areas identified in the approved plans. Any equipment traversing wetlands and subaqueous lands as may be authorized by this Permit shall be supported on mats.
8. Disturbance of wetlands and/or aquatic vegetation adjacent to the permitted construction by burning, cutting, herbicide treatments, heavy equipment or other methods is prohibited.
9. All construction debris, excavated material, brush, rocks and refuse incidental to such work shall be placed above the influence of surface waters and outside of regulated wetlands and appropriately contained at all times to prevent its entry into surface water or wetlands. All such material shall be reused, removed or properly disposed.
10. All fill material associated with the proposed project and included in the above-referenced plans shall be clean and free from oils, grease, asphalt and other contaminants.
11. There shall be no stockpiling of construction material in regulated wetlands or subaqueous lands.
12. Erosion and sediment control measures shall be implemented in accordance with the specification and criteria in the current Delaware Erosion and Sediment Control Handbook, so as to minimize entry and dispersal of sediment and other contaminants in surface waters.
13. The permittee shall employ measures during construction to prevent spills of fuels or lubricants. In the event of a spill, efforts shall be taken to prevent its entry into wetlands and waters. Any spills entering wetlands and waters shall be removed immediately. This office shall be notified of any spill(s) within six hours of occurrence. This office will determine the effectiveness of spill and contamination removal and specify remediation as necessary.

14. The construction in tidal wetlands is for the explicit purpose of highway construction as described in the permit application.
15. A copy of this Permit must be available on-site during all phases of construction activity.
16. The work authorized by this Permit is subject to the terms and conditions of the Department of the Army Individual Permit.

GENERAL CONDITIONS

1. The project is to be undertaken in accordance with the plans submitted and attached hereto. Any activities not specifically authorized herein may require a supplemental approval from this office prior to the initiation of construction. A determination on the need for a supplemental approval will be made by this office pursuant to the permittee submitting written notification and revised plans indicating project changes to this office.
2. Representatives of the Department of Natural Resources and Environmental Control may inspect such work during any phase of the construction and may collect any samples or conduct any tests that are deemed necessary.
3. This Permit does not cover the structural stability of the project units.
4. Any actions, operations or installations which are considered by the Department to be contrary to the best interests of the public shall constitute reason for the discontinuance and/or removal of said action, operation or installation.
5. The issuance of this Permit does not imply approval of any other part, phase, or portion of any overall project the permittee may be contemplating.
6. This Permit is subject to the terms and conditions contained in any easement, license or lease that may have been granted by the State or any political subdivision, board, commission or agency of the State in the vicinity of the project.
7. This Permit is granted for the purposes as stated herein. Any other use without prior approval shall constitute reason for this Permit being revoked.
8. This Permit shall expire if the project has not been completed within five (5) years from the date of issuance.
9. If the permittee considers five (5) years insufficient for completion of the project, the permittee may submit a project time schedule for consideration by the Department. If the time schedule is approved it shall be attached hereto and made a part hereof.
10. The permittee shall notify the Department of Natural Resources and Environmental Control within ten (10) days of the date work will be commenced.

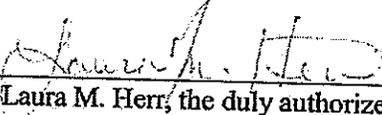
WE-388/06

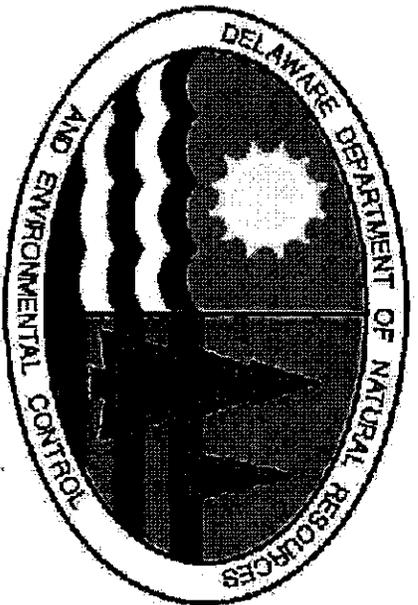
Associated Permits: SP-014/06 and WQ-389/06

Page 5 of 5

11. This Permit is personal and may not be transferred without the prior written consent of the Department. Prior to the transfer of the adjacent upland property, the permittee shall obtain the written consent of the Department to transfer this Permit to the new upland property owner. Failure to obtain such written consent may result in the revocation of this Permit and the removal of all structures authorized by this Permit at the expense of the permittee.
12. The permittee shall at all times comply with all applicable laws and regulations of the Department of Natural Resources and Environmental Control.
13. The issuance of this Permit does not constitute approval for any of the activities as may be required by any other local, State or federal governmental agency.
14. This Permit may be revoked upon violation of any of the above conditions.

IN WITNESS WHEREOF, I, Laura M. Herr, the duly authorized representative of John A. Hughes, Secretary, Department of Natural Resources and Environmental Control, have hereunto set my hand this 27th day of December, 2006.


By Laura M. Herr, the duly authorized
representative of the Secretary of the
Department of Natural Resources and
Environmental Control



**DEPARTMENT OF NATURAL RESOURCES
AND
ENVIRONMENTAL CONTROL**

NOTICE OF AUTHORIZATION

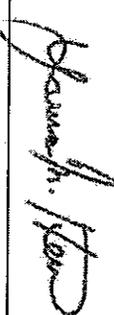
Permit/Lease No. and Description: WE-388/06 To perform the following activities in tidal wetlands in the Christina River for construction of the Interstate 95 bridge over the Christina River, located east of Christiana, in New Castle County, Delaware:

- To place 608 cubic yards of fill material in 3,522 square feet of tidal wetlands for bridge abutments; and
- To temporarily place turbidity curtains in 4,127 square feet of tidal wetlands.

Issued to: DELAWARE DEPARTMENT OF TRANSPORTATION
Location of Work: Same as above

Date of Expiration: 12/ 08/2011

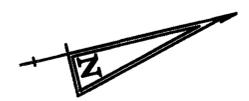
**DISPLAY THIS CERTIFICATE IN A
HIGHLY VISIBLE LOCATION ON THE JOB SITE.**


Laura M. Herr, Program Manager
Wetlands & Subaqueous Lands Section

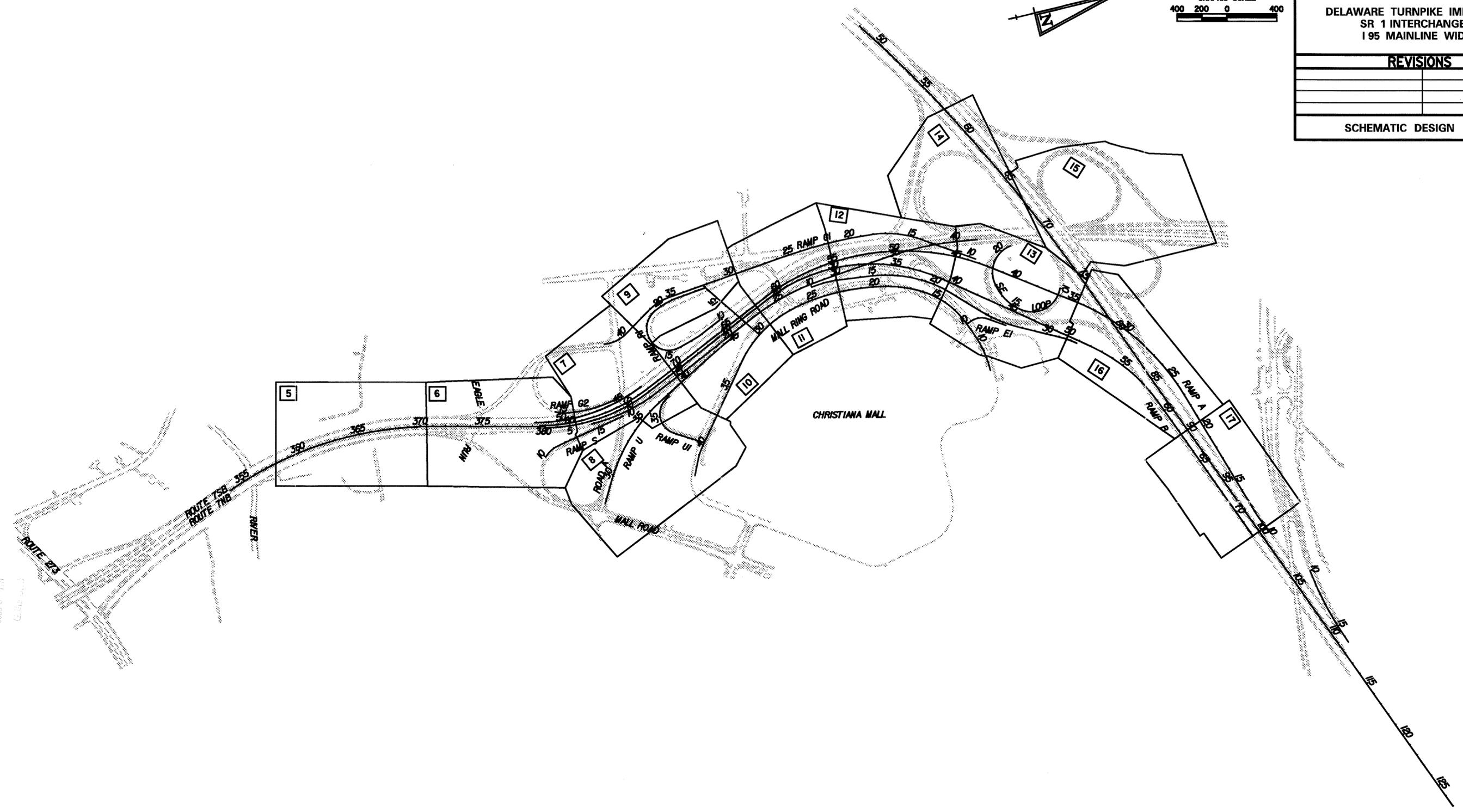
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PREL. TRACING _____ DESIGN _____ CHKD. _____

INDEX PLAN
GRAPHIC SCALE
400 200 0 400



CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHEETS
95-090-01	NEW CASTLE	IM-N056(27)	2	27
DELAWARE TURNPIKE IMPROVEMENTS SR 1 INTERCHANGE AND I 95 MAINLINE WIDENING				
REVISIONS				
SCHEMATIC DESIGN PLANS				

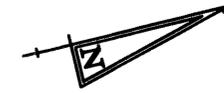
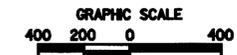


W.G.L.S.
APPROVED PLANS
 PERMIT # SP-01466
 DATE 11/20/02
 (SEE PERMIT CONDITIONS)

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PREL. TRACING _____ DESIGN _____ CHKD. _____

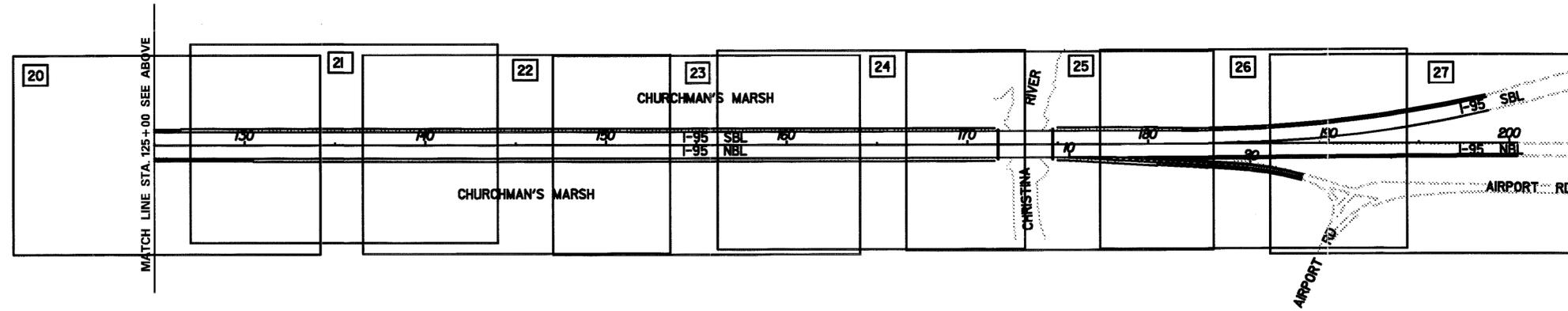
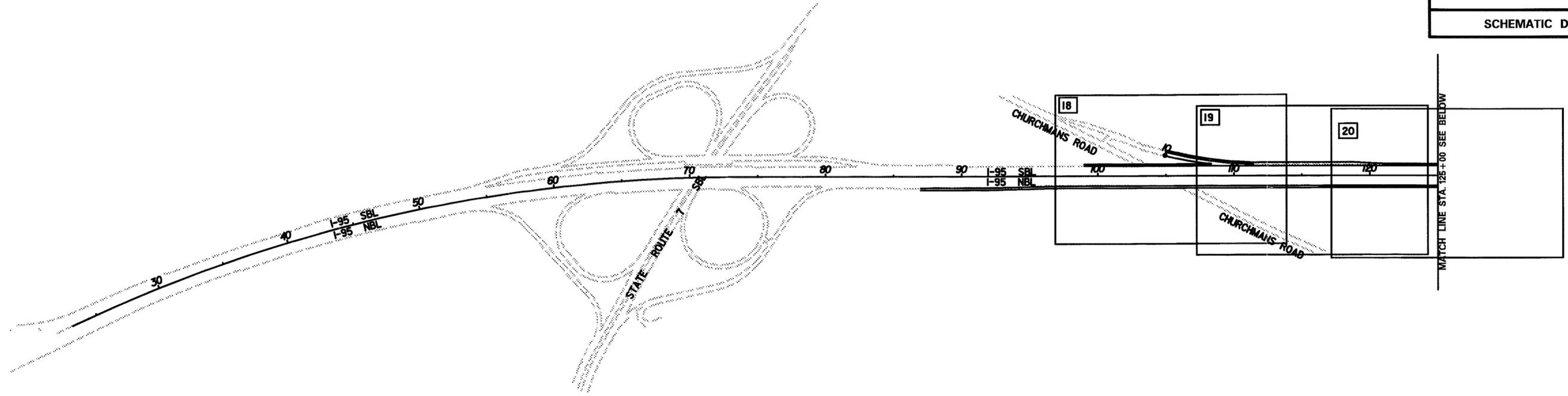
INDEX PLAN



CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHTS.
95-090-01	NEW CASTLE	IM-N056(27)	3	27

REVISIONS	

SCHEMATIC DESIGN PLANS	



W&L
APPROVED PLANS
PERMIT # SP-014/06
DATE 11/21/06
(SEE PERMIT CONDITIONS)

DNREC ENVIRONMENTAL COMPLIANCE NOTES

CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHEETS
95-090-01	NEW CASTLE	IM-N056(27)	4	27
DELAWARE TURNPIKE IMPROVEMENTS SR 1 INTERCHANGE AND I 95 MAINLINE WIDENING				
REVISIONS				
SCHEMATIC DESIGN PLANS				

1. ENVIRONMENTAL COMPLIANCE NOTES

- A. THE PURPOSE OF THESE ENVIRONMENTAL COMPLIANCE SHEETS IS TO IDENTIFY THOSE ITEMS ASSOCIATED WITH ENVIRONMENTAL COMPLIANCE. IMPACT CALCULATIONS ARE FOR AGENCY REPORTING PURPOSES ONLY AND ARE NOT TO BE USED FOR BIDDING PURPOSES.**
- B. IF A DEPARTURE FROM THE APPROVED PLANS (WHICH WOULD AFFECT ANY OF THE NATURAL AND/OR CULTURAL RESOURCE ISSUES) IS NECESSARY, THE ENVIRONMENTAL STUDIES SECTION SHALL BE CONTACTED AT (302) 760-2264 TO ALLOW THE DEPARTMENT TO COORDINATE WITH THE APPROPRIATE RESOURCE AGENCIES FOR APPROVAL.**
- C. USE OF THIS SHEET DOES NOT ALLEVIATE THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH ALL CONDITIONS SET FORTH IN THE ENVIRONMENTAL STATEMENT AND PERMITS.**

2. NATURAL RESOURCE ISSUES: *

- A. PERMIT REQUIREMENTS / APPROVALS**
- CORPS OF ENGINEERS - INDIVIDUAL PERMIT (PENDING) **
 - DNREC - WETLANDS AND SUBAQUEOUS LANDS PERMIT (PENDING) **
 - DNREC - WATER QUALITY CERTIFICATION (PENDING) **
 - DNREC - COASTAL ZONE CONSISTENCY (PENDING) **
 - NEWCASTLE COUNTY FLOODPLAIN DEVELOPMENT APPROVAL (APPROVED MARCH 14, 2005)**
 - U.S. COAST GUARD - THE CHRISTINA RIVER IS A NAVIGABLE WATERWAY. ALL WORK PERFORMED WITHIN THE WATERWAY SHALL BE COORDINATED WITH THE U.S. COAST GUARD PRIOR TO BEGINNING WORK AND SHALL BE IN CONFORMANCE WITH ITEM NO. 763552 - "COAST GUARD SPECIFIC CONDITIONS". VERTICAL CLEARANCE MUST BE MAINTAINED IN ACCORDANCE WITH COAST GUARD REQUIREMENTS. FURTHERMORE, ADVANCED NOTIFICATION SHALL BE GIVEN, WHICH REQUIRES THE CONTRACTOR TO FORMALLY NOTIFY THE COAST GUARD 30 DAYS IN ADVANCE OF ANY PLANNED TEMPORARY OBSTRUCTION TO WATERWAY NAVIGATION. CONTACT BILL BRAZIER AT (757) 398-6422, AS WELL AS SUBMIT A WRITTEN NOTICE (WHICH INCLUDES A SKETCH DEPICTING THE LOCATIONS AND DURATION OF ALL RESTRICTIONS) TO THE COMMANDING OFFICER, 5TH COAST GUARD DISTRICT, FEDERAL BUILDING 431 CRAWFORD ST., PORTSMOUTH, VA 23704 FOR APPROVAL.

NATIONAL PARK SERVICE - WHITE CLAY CREEK WILD AND SCENIC RIVER (PENDING)

* - THE PERMITS / APPROVALS LISTED ARE THOSE REQUIRED FOR THIS PROJECT. THE ENVIRONMENTAL STUDIES SECTION IS RESPONSIBLE FOR COORDINATING/OBTAINING THESE PERMIT APPROVALS.

** - THE CONTRACTOR MUST ENSURE THAT THESE PERMITS (C.O.E., DNREC) ARE IN THEIR POSSESSION PRIOR TO THE BEGINNING OF CONSTRUCTION IN THE PERMITTED AREAS. THESE PERMITS SHALL BE DISPLAYED ON-SITE DURING THE ENTIRE CONSTRUCTION PERIOD.

B. CONSTRUCTION RESTRICTIONS (TIME FRAMES, ETC.)

FISHERIES : NO CONSTRUCTION SHALL OCCUR IN THE CHRISTINA RIVER (STA. 172+50 TO STA. 173+70) FROM MARCH 15 THROUGH MAY 31 TO PREVENT THE INTERFERENCE OF MIGRATION DURING THE SPAWNING SEASON OF YELLOW PERCH, WHITE PERCH, ALEWIFE, BLUEBACK HERRING, AND AMERICAN SHAD.

ENDANGERED SPECIES : NO WORK SHALL OCCUR ADJACENT TO CHURCHMAN'S MARSH (STA. 128+50 TO STA. 172+50) FROM JANUARY 1 THROUGH MARCH 31 TO PREVENT DISTURBANCE TO BALD EAGLE NEST SITES.

MIGRATORY SPECIES : TBD

3. CULTURAL RESOURCE ISSUES: TBD

4. ACCESS ISSUES: TBD

I-95 MAINLINE/SR-1 INTERCHANGE PERMANENT IMPACTS					
SHEET #	TYPE	LOCATION	AREA (SQUARE FEET)	AREA (ACRE)	VOLUME (CUBIC YARDS)
WETLANDS					
25	FILL	W1	35	0.0008	1
25	FILL	W2	225	0.0052	3
WETLANDS SUBTOTAL			260	0.0060	4
SUBAQUEOUS LAND					
6	FILL	O1	492	0.0113	6
7	FILL	O2	119	0.0027	21
7	RIPRAP	O3	620	0.0142	40
11	FILL	O4	227	0.0052	233
11	RIPRAP	O5	1,980	0.0455	220
18	FILL	O6	1,491	0.0342	102
19	FILL	O7	6,639	0.1524	610
20	FILL	O8	6,172	0.1417	379
20	RIPRAP	O9	636	0.0146	51
20	RIPRAP	O10	1,721	0.0395	113
21	RIPRAP	O11	189	0.0043	16
21	RIPRAP	O12	859	0.0197	93
22	FILL	O13	50	0.0011	21
22	RIPRAP	O14	368	0.0084	24
22	FILL	O15	78	0.0018	25
22	RIPRAP	O16	973	0.0223	77
25	FILL (PILES)	O17	225	0.0052	3
25	FILL (PILES)	O18	225	0.0052	3
25	FILL (PILES)	O19	225	0.0052	3
25	FILL (PILES)	O20	225	0.0052	3
SUBAQUEOUS LAND SUBTOTAL			23,514	0.5398	2,043
TOTAL DNREC AQUATIC			23,774	0.5458	2,047

Wetlands impacts have been removed

I-95 MAINLINE/SR-1 INTERCHANGE TEMPORARY IMPACTS					
SHEET #	TYPE	LOCATION	AREA (SQUARE FEET)	AREA (ACRE)	VOLUME (CUBIC YARDS)
SUBAQUEOUS LAND					
7	E&S	OT1	145	0.0033	N/A
7	E&S	OT2	216	0.0050	N/A
11	E&S	OT3	358	0.0082	N/A
20	E&S	OT4	40	0.0009	N/A
21	E&S	OT5	325	0.0075	N/A
22	E&S	OT6	32	0.0007	N/A
22	E&S	OT7	1,160	0.0266	N/A
22	E&S	OT8	60	0.0014	N/A
22	E&S	OT9	1,610	0.0370	N/A
22	E&S	OT10	54	0.0012	N/A
23	E&S	OT11	58	0.0013	N/A
23	E&S	OT12	36	0.0008	N/A
23	E&S	OT13	38	0.0009	N/A
23	E&S	OT14	36	0.0008	N/A
23	E&S	OT15	49	0.0011	N/A
23	E&S	OT16	49	0.0011	N/A
23	E&S	OT17	99	0.0023	N/A
23	E&S	OT18	96	0.0022	N/A
24	E&S	OT19	58	0.0013	N/A
24	E&S	OT20	12	0.0003	N/A
24	E&S	OT21	21	0.0005	N/A
24	E&S	OT22	55	0.0013	N/A
25	E&S	OT23	62	0.0014	N/A
25	E&S	OT24	53	0.0012	N/A
SUBAQUEOUS LAND SUBTOTAL			4,722	0.1084	N/A
TOTAL DNREC AQUATIC			4,722	0.1084	N/A

* ADDITIONAL AUTHORIZED IMPACTS ON SHEET 25

APPROVED PLANS
PERMITS SP-04166
DATE 11/21/05
(SEE PERMITS FOR DETAILS)

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 PREL. TRACING

ENVIRONMENTAL COMPLIANCE NOTES

SEE FIRST ENVIRONMENTAL COMPLIANCE SHEET

DNREC PERMIT IMPACTS & ENVIRONMENTAL COMPLIANCE PLAN

CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHEETS
95-090-01	NEW CASTLE	IM-N056(27)	6	27

DELAWARE TURNPIKE IMPROVEMENTS
SR 1 INTERCHANGE AND
I 95 MAINLINE WIDENING

REVISIONS

SCHEMATIC DESIGN PLANS

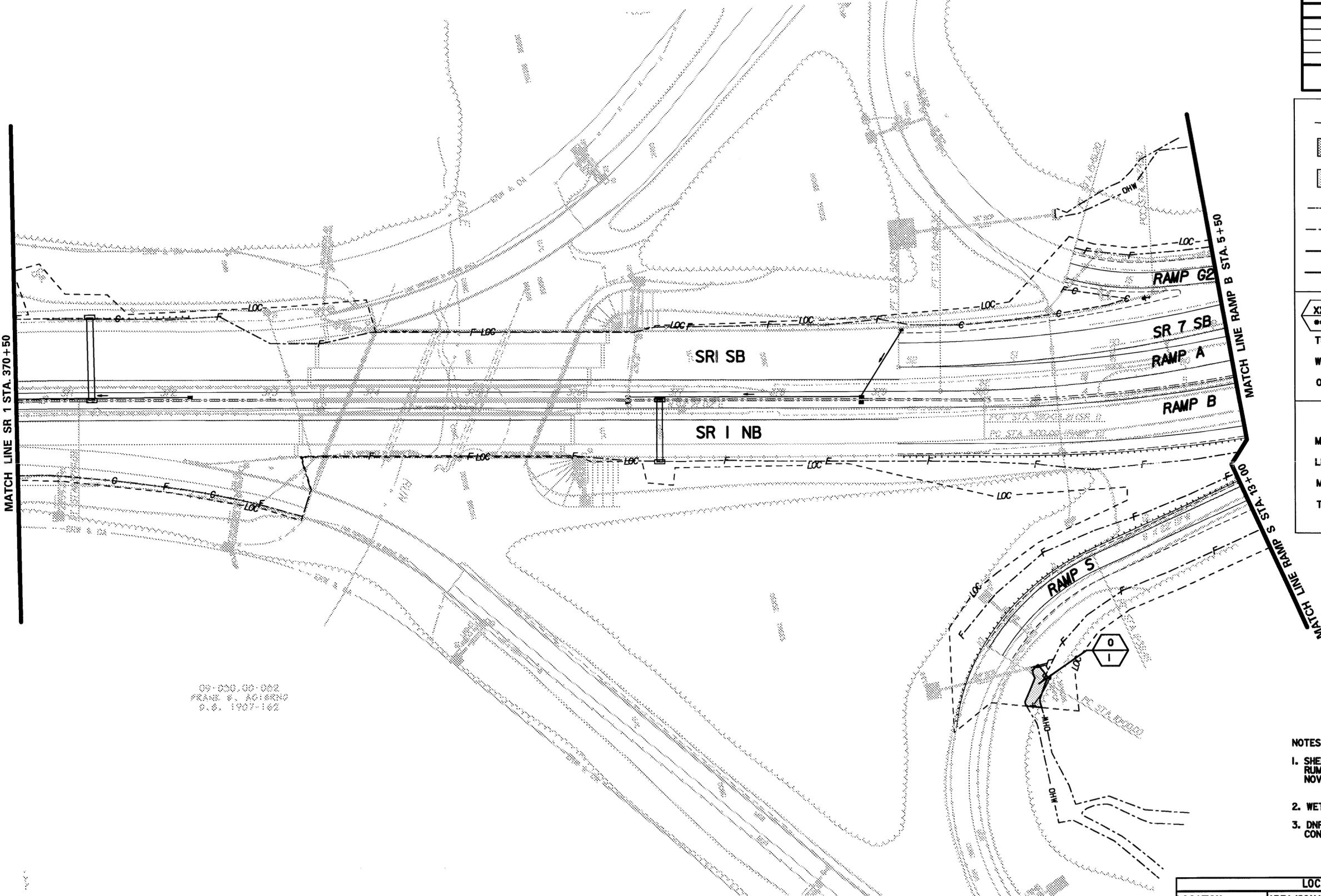
LEGEND

- PERMANENT DNREC JURISDICTIONAL WETLAND/SUBAQUEOUS LANDS IMPACT
- TEMPORARY DNREC JURISDICTIONAL WETLAND/SUBAQUEOUS LANDS IMPACT
- MHW --- MEAN HIGH WATER
- OHW --- ORDINARY HIGH WATER
- WL --- WETLAND BOUNDARY
- WT --- WETLAND TYPE BOUNDARY

- IMPACT TYPE ID (SEE BELOW)
- IMPACT AREA LOCATION NUMBER
- T= TEMPORARY IMPACT
- W= DNREC WETLAND IMPACT
- O= DNREC SUBAQUEOUS LAND IMPACT

WETLAND TYPES

- M= MARSH
- LM= LOW MARSH
- MS= MARSH IN SPOIL AREAS
- T= TIDAL MUDFLATS



MATCH LINE SR 1 STA. 370+50

MATCH LINE RAMP B STA. 5+50

MATCH LINE RAMP S STA. 13+00

95-090-00-002
FRANK S. ADLERND
P. 8. 1997-162

W.S.L.S.
APPROVED PLANS
PERMIT # SP-04106
DATE 11/21/06
(SEE PERMIT CONDITIONS)

- NOTES:
1. SHEETS PREPARED BY:
RUMMEL, KLEPPER & KAHL, LLP
NOVEMBER 2004
 2. WETLAND BOUNDARIES BASED ON DNREC MAPPING.
 3. DNREC WETLAND JURISDICTIONAL DETERMINATION CONDUCTED, FINAL PLANS SUBMITTED MARCH 2005.

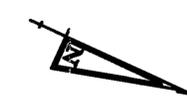
LOCATION OF IMPACT AREAS			
LOCATION	AREA (SQUARE FEET)	AREA (ACRES)	VOLUME (CUBIC YARDS)
PERMANENT IMPACTS			
FILL AREA 01	492	0.013	6
TOTAL	492	0.013	6

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 PREL. TRACING DESIGN CHKD.

ENVIRONMENTAL COMPLIANCE NOTES

SEE FIRST ENVIRONMENTAL COMPLIANCE SHEET

DNREC PERMIT IMPACTS & ENVIRONMENTAL COMPLIANCE PLAN



CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHEETS
95-090-01	NEW CASTLE	1M-N056(27)	7	27

DELAWARE TURNPIKE IMPROVEMENTS
SR 1 INTERCHANGE AND
I 95 MAINLINE WIDENING

REVISIONS

SCHEMATIC DESIGN PLANS

NOTES:

1. SHEETS PREPARED BY:
RUMMEL, KLEPPER & KAHL, LLP
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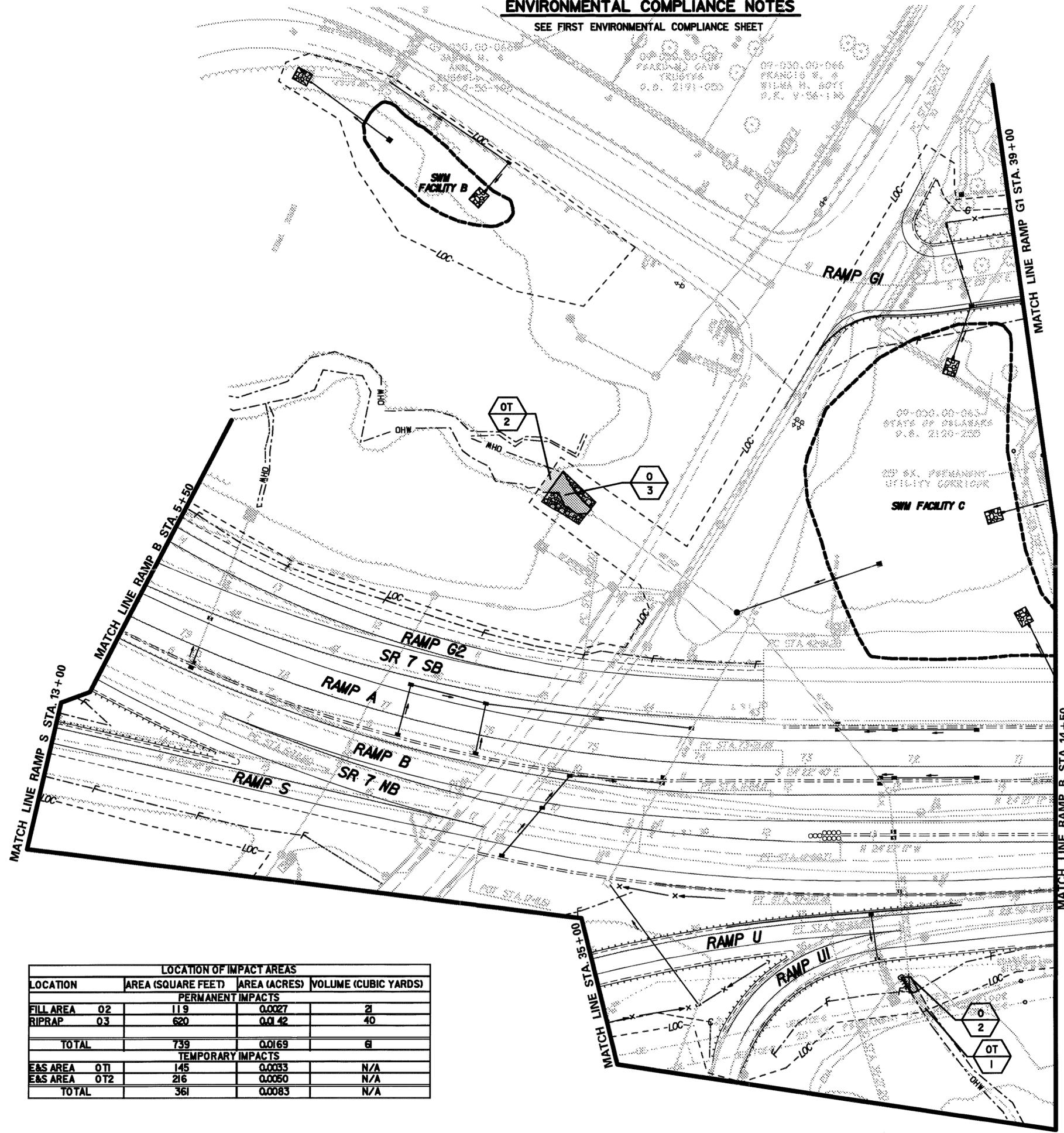
LEGEND

- PERMANENT DNREC JURISDICTIONAL WETLAND/SUBAQUEOUS LANDS IMPACT
- TEMPORARY DNREC JURISDICTIONAL WETLAND/SUBAQUEOUS LANDS IMPACT
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- MS= MARSH IN SPOIL AREAS
- T= TIDAL MUDFLATS



LOCATION OF IMPACT AREAS				
LOCATION	AREA (SQUARE FEET)	AREA (ACRES)	VOLUME (CUBIC YARDS)	
PERMANENT IMPACTS				
FILL AREA 02	119	0.0027	21	
RIPRAP 03	620	0.0142	40	
TOTAL	739	0.0169	61	
TEMPORARY IMPACTS				
E&S AREA OT1	145	0.0033	N/A	
E&S AREA OT2	216	0.0050	N/A	
TOTAL	361	0.0083	N/A	

WGLS
APPROVED PLANS
PERMITS SP-014/06
DATE 11/20/06
(SEE PERMIT CONDITIONS)

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CHKD.

DESIGN

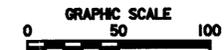
PREL. TRACING

ENVIRONMENTAL COMPLIANCE NOTES

SEE FIRST ENVIRONMENTAL COMPLIANCE SHEET

DNREC PERMIT IMPACTS & ENVIRONMENTAL COMPLIANCE PLAN

CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHEETS
95-090-01	NEW CASTLE	IM-N056(27)	11	27
DELAWARE TURNPIKE IMPROVEMENTS SR 1 INTERCHANGE AND I 95 MAINLINE WIDENING				
REVISIONS				
SCHEMATIC DESIGN PLANS				



NOTES:

- SHEETS PREPARED BY:
RUMMEL, KLEPPER & KAHL, LLP
NOVEMBER 2004
- WETLAND BOUNDARIES BASED ON DNREC MAPPING.
- DNREC WETLAND JURISDICTIONAL DETERMINATION CONDUCTED, FINAL PLANS SUBMITTED MARCH 2005.
- CHANNEL WILL BE BACKFILLED WITH NATIVE SALVAGED BED MATERIALS. AREAS OF BANK ABOVE MHW/OWH WILL BE FILLED, TOPSOILED, AND PLANTED.

LEGEND

- PERMANENT DNREC JURISDICTIONAL WETLAND/SUBAQUEOUS LANDS IMPACT
- TEMPORARY DNREC JURISDICTIONAL WETLAND/SUBAQUEOUS LANDS IMPACT

- MEAN HIGH WATER
- ORDINARY HIGH WATER
- WETLAND BOUNDARY
- WETLAND TYPE BOUNDARY

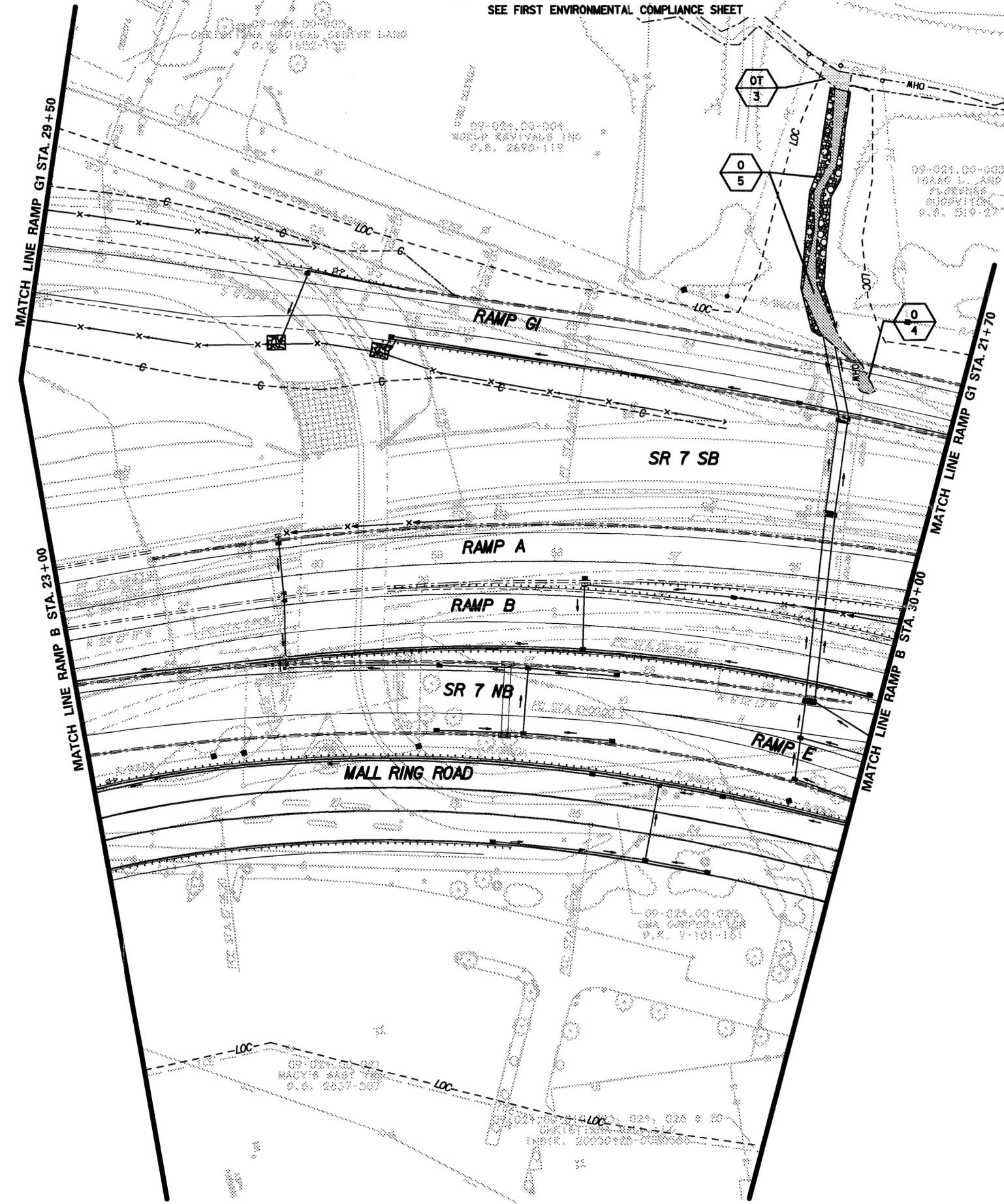
- IMPACT TYPE ID (SEE BELOW)
IMPACT AREA LOCATION NUMBER
- T= TEMPORARY IMPACT
- W= DNREC WETLAND IMPACT
- O= DNREC SUBAQUEOUS LAND IMPACT

WETLAND TYPES

- M= MARSH
- LM= LOW MARSH
- MS= MARSH IN SPOIL AREAS
- T= TIDAL MUDFLATS

APPROVED PLANS
PERMIT # SR-04-106
DATE 11/21/06
SEE PERMIT # SR-04-106

LOCATION OF IMPACT AREAS			
LOCATION	AREA (SQUARE FEET)	AREA (ACRES)	VOLUME (CUBIC YARDS)
PERMANENT IMPACTS			
FILL AREA 04	227	0.0052	233
RIPRAP AREA 05	1980	0.0455	220
TOTAL	2207	0.0507	453
TEMPORARY IMPACTS			
E&S AREA 0T3	358	0.0082	N/A
TOTAL	358	0.0082	N/A



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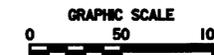
PREL. TRACING DESIGN CHKD.

ENVIRONMENTAL COMPLIANCE NOTES

SEE FIRST ENVIRONMENTAL COMPLIANCE SHEET

LOCATION OF IMPACT AREAS			
LOCATION	AREA (SQUARE FEET)	AREA (ACRES)	VOLUME (CUBIC YARDS)
PERMANENT IMPACTS			
FILL AREA 06	1 491	0.0342	1 02
TOTAL	1 491	0.0342	1 02
TEMPORARY IMPACTS			
TOTAL	0	0.0000	N/A

DNREC PERMIT IMPACTS & ENVIRONMENTAL COMPLIANCE PLAN



CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHTS.
95-090-01	NEW CASTLE	IM-N056(27)	18	27

DELAWARE TURNPIKE IMPROVEMENTS
SR 1 INTERCHANGE AND
I 95 MAINLINE WIDENING

REVISIONS

SCHEMATIC DESIGN PLANS

NOTES:

1. SHEETS PREPARED BY:
RUMMEL, KLEPPER & KAHL, LLP
NOVEMBER 2004
2. WETLAND BOUNDARIES BASED ON DNREC MAPPING.
3. DNREC WETLAND JURISDICTIONAL DETERMINATION CONDUCTED, FINAL PLANS SUBMITTED MARCH 2005.

W.S.L.S.
APPROVED PLANS
PERMIT # SP 01066
DATE 10/26/05
(SEE PERMIT CONDITIONS)

LEGEND

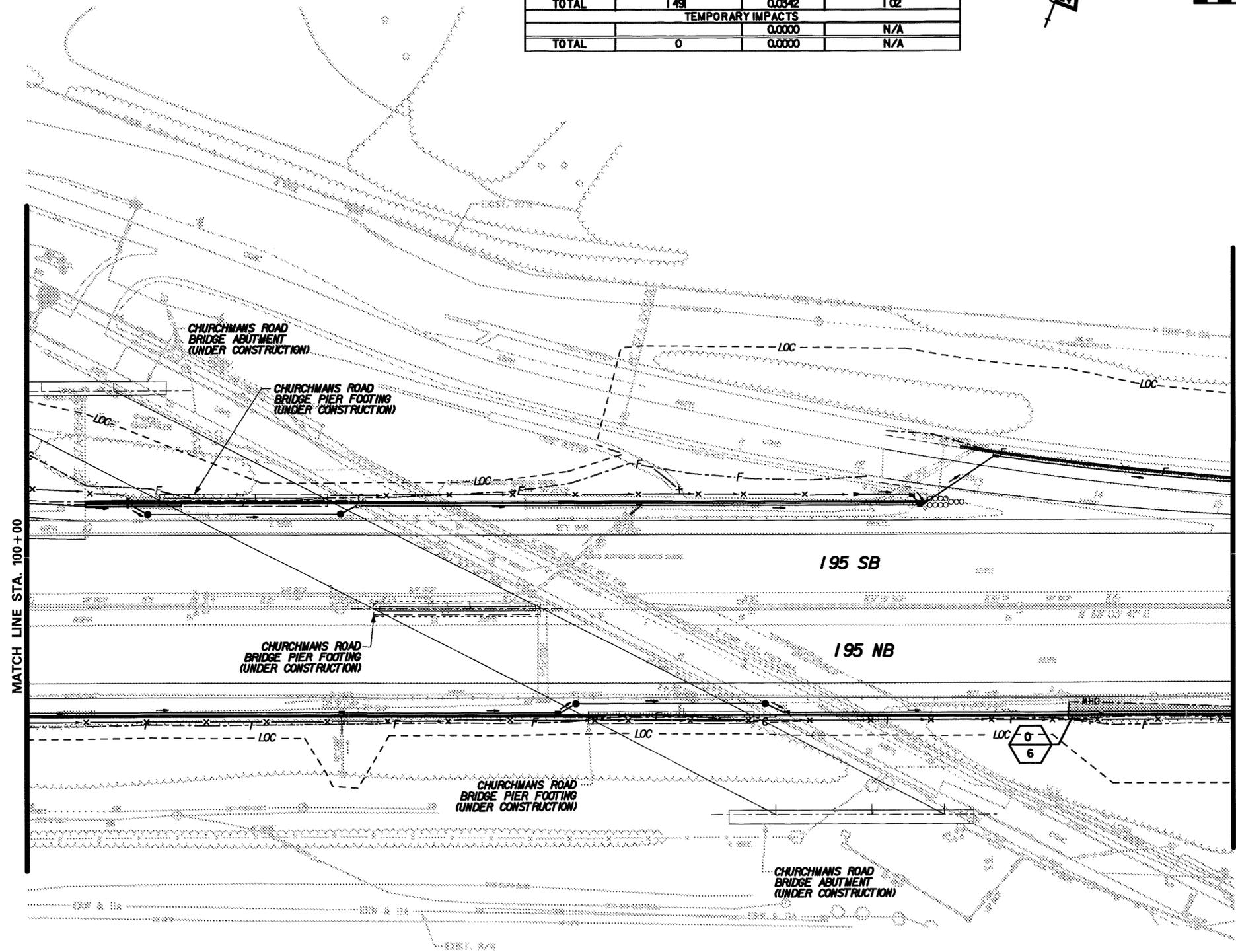
- PERMANENT DNREC JURISDICTIONAL WETLAND/SUBAQUEOUS LANDS IMPACT
- TEMPORARY DNREC JURISDICTIONAL WETLAND/SUBAQUEOUS LANDS IMPACT
- MHW MEAN HIGH WATER
- OHW ORDINARY HIGH WATER
- WL WETLAND BOUNDARY
- WETLAND TYPE BOUNDARY

- IMPACT TYPE ID (SEE BELOW)
- IMPACT AREA LOCATION NUMBER
- T= TEMPORARY IMPACT
- W= DNREC WETLAND IMPACT
- O= DNREC SUBAQUEOUS LAND IMPACT

WETLAND TYPES

- M= MARSH
- LM= LOW MARSH
- MS= MARSH IN SPOIL AREAS
- T= TIDAL MUDFLATS

W.S.L.S.
APPROVED PLANS
PERMIT # _____
DATE _____
(SEE PERMIT CONDITIONS)



MATCH LINE STA. 100+00

MATCH LINE STA. 110+00

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CHKD.

DESIGN

PREL. TRACING

ENVIRONMENTAL COMPLIANCE NOTES

SEE FIRST ENVIRONMENTAL COMPLIANCE SHEET

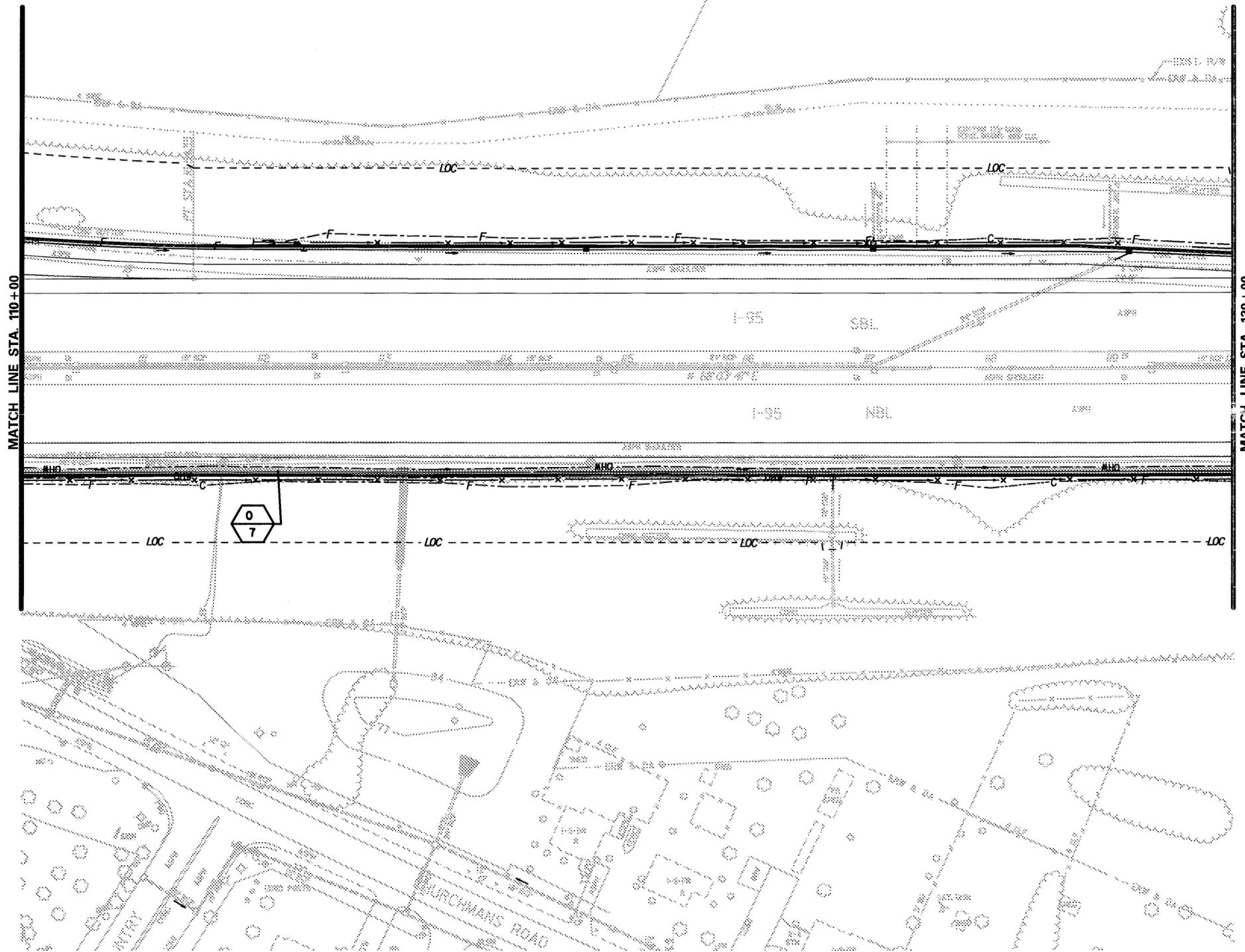
DNREC PERMIT IMPACTS &
ENVIRONMENTAL COMPLIANCE PLAN



CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHEETS
95-090-01	NEW CASTLE	1M-N056(27)	19	27
DELAWARE TURNPIKE IMPROVEMENTS SR 1 INTERCHANGE AND I 95 MAINLINE WIDENING				
REVISIONS				
SCHEMATIC DESIGN PLANS				

NOTES:

- SHEETS PREPARED BY:
RUMMEL, KLEPPER & KAHL, LLP
NOVEMBER 2004
- WETLAND BOUNDARIES BASED ON DNREC MAPPING.
- DNREC WETLAND JURISDICTIONAL DETERMINATION
CONDUCTED, FINAL PLANS SUBMITTED MARCH 2005.



LEGEND

PERMANENT DNREC JURISDICTIONAL WETLAND/SUBAQUEOUS LANDS IMPACT

TEMPORARY DNREC JURISDICTIONAL WETLAND/SUBAQUEOUS LANDS IMPACT

MEAN HIGH WATER

ORDINARY HIGH WATER

WETLAND BOUNDARY

WETLAND TYPE BOUNDARY

IMPACT TYPE ID (SEE BELOW)
IMPACT AREA LOCATION NUMBER

T= TEMPORARY IMPACT

W= DNREC WETLAND IMPACT

O= DNREC SUBAQUEOUS LAND IMPACT

WETLAND TYPES

M= MARSH

LM= LOW MARSH

MS= MARSH IN SPOIL AREAS

T= TIDAL MUDFLATS

U.S.G.S.
APPROVED PLANS
PERMIT # SP-04-106
DATE 11/21/05
BY [Signature]

LOCATION OF IMPACT AREAS			
LOCATION	AREA (SQUARE FEET)	AREA (ACRES)	VOLUME (CUBIC YARDS)
PERMANENT IMPACTS			
FILL AREA 07	6639	0.1524	610
TOTAL	6639	0.1524	610
TEMPORARY IMPACTS			
TOTAL	0	0.0000	N/A

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PREL. TRACING DESIGN CHKD.

ENVIRONMENTAL COMPLIANCE NOTES

SEE FIRST ENVIRONMENTAL COMPLIANCE SHEET

DNREC PERMIT IMPACTS & ENVIRONMENTAL COMPLIANCE PLAN

CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SITS.
95-090-01	NEW CASTLE	1M-N056(27)	20	27

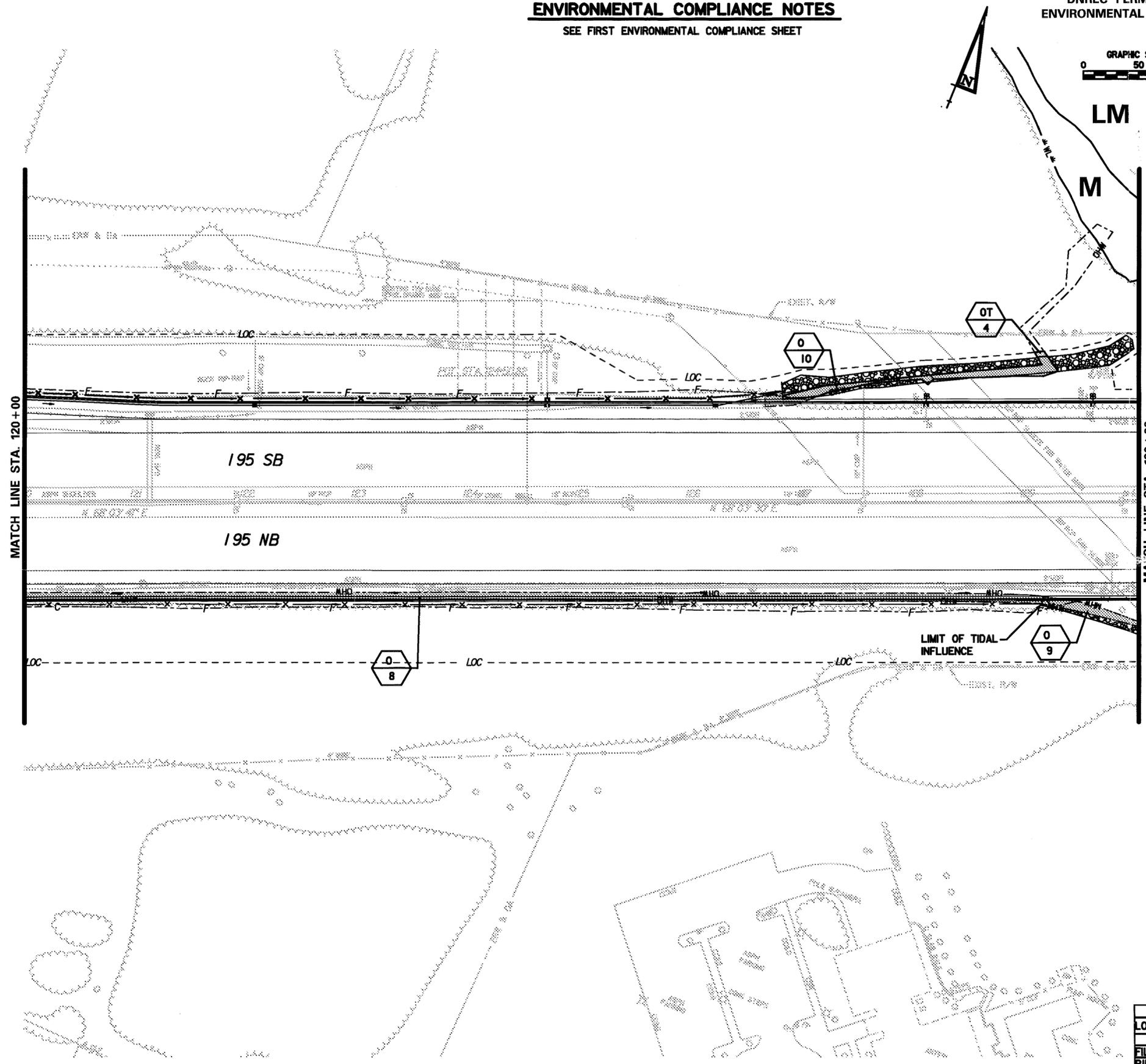
DELAWARE TURNPIKE IMPROVEMENTS
SR 1 INTERCHANGE AND
I 95 MAINLINE WIDENING

REVISIONS

SCHEMATIC DESIGN PLANS

NOTES:

1. SHEETS PREPARED BY:
RUMMEL, KLEPPER & KAHL, LLP
NOVEMBER 2004
2. WETLAND BOUNDARIES BASED ON DNREC MAPPING.
3. DNREC WETLAND JURISDICTIONAL DETERMINATION CONDUCTED, FINAL PLANS SUBMITTED MARCH 2005.
4. CHANNEL WILL BE BACKFILLED WITH NATIVE SALVAGED BED MATERIALS. AREAS OF BANK ABOVE MHW/OHW WILL BE FILLED, TOPSOILED, AND PLANTED.



LEGEND

	PERMANENT DNREC JURISDICTIONAL WETLAND/SUBAQUEOUS LANDS IMPACT
	TEMPORARY DNREC JURISDICTIONAL WETLAND/SUBAQUEOUS LANDS IMPACT
	MHW - MEAN HIGH WATER
	OHW - ORDINARY HIGH WATER
	WL - WETLAND BOUNDARY
	WETLAND TYPE BOUNDARY

	IMPACT TYPE ID (SEE BELOW)
	IMPACT AREA LOCATION NUMBER
T	TEMPORARY IMPACT
W	DNREC WETLAND IMPACT
O	DNREC SUBAQUEOUS LAND IMPACT

WETLAND TYPES

M	MARSH
LM	LOW MARSH
MS	MARSH IN SPOIL AREAS
T	TIDAL MUFLATS

WGLS
APPROVED PLANS
PERMIT # 21-012/06
DATE 11/21/06
RESPECTFULLY,
[Signature]

LOCATION OF IMPACT AREAS

LOCATION	AREA (SQUARE FEET)	AREA (ACRES)	VOLUME (CUBIC YARDS)
PERMANENT IMPACTS			
FILL AREA 08	672	0.1417	379
RIPRAP AREA 09	636	0.0146	51
RIPRAP AREA 010	1721	0.0395	113
TOTAL	8529	0.1958	543
TEMPORARY IMPACTS			
E&S AREA OT4	40	0.0009	N/A
TOTAL	40	0.0009	N/A

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PREL. TRACING DESIGN CHKD.

LOCATION OF IMPACT AREAS			
LOCATION	AREA (SQUARE FEET)	AREA (ACRES)	VOLUME (CUBIC YARDS)
PERMANENT IMPACTS			
RIPRAP AREA 011	189	0.0043	16
RIPRAP AREA 012	859	0.0197	93
TOTAL	1048	0.0240	109
TEMPORARY IMPACTS			
E&S AREA OT5	325	0.0075	N/A
TOTAL	325	0.0075	N/A

ENVIRONMENTAL COMPLIANCE NOTES

SEE FIRST ENVIRONMENTAL COMPLIANCE SHEET

DNREC PERMIT IMPACTS & ENVIRONMENTAL COMPLIANCE PLAN



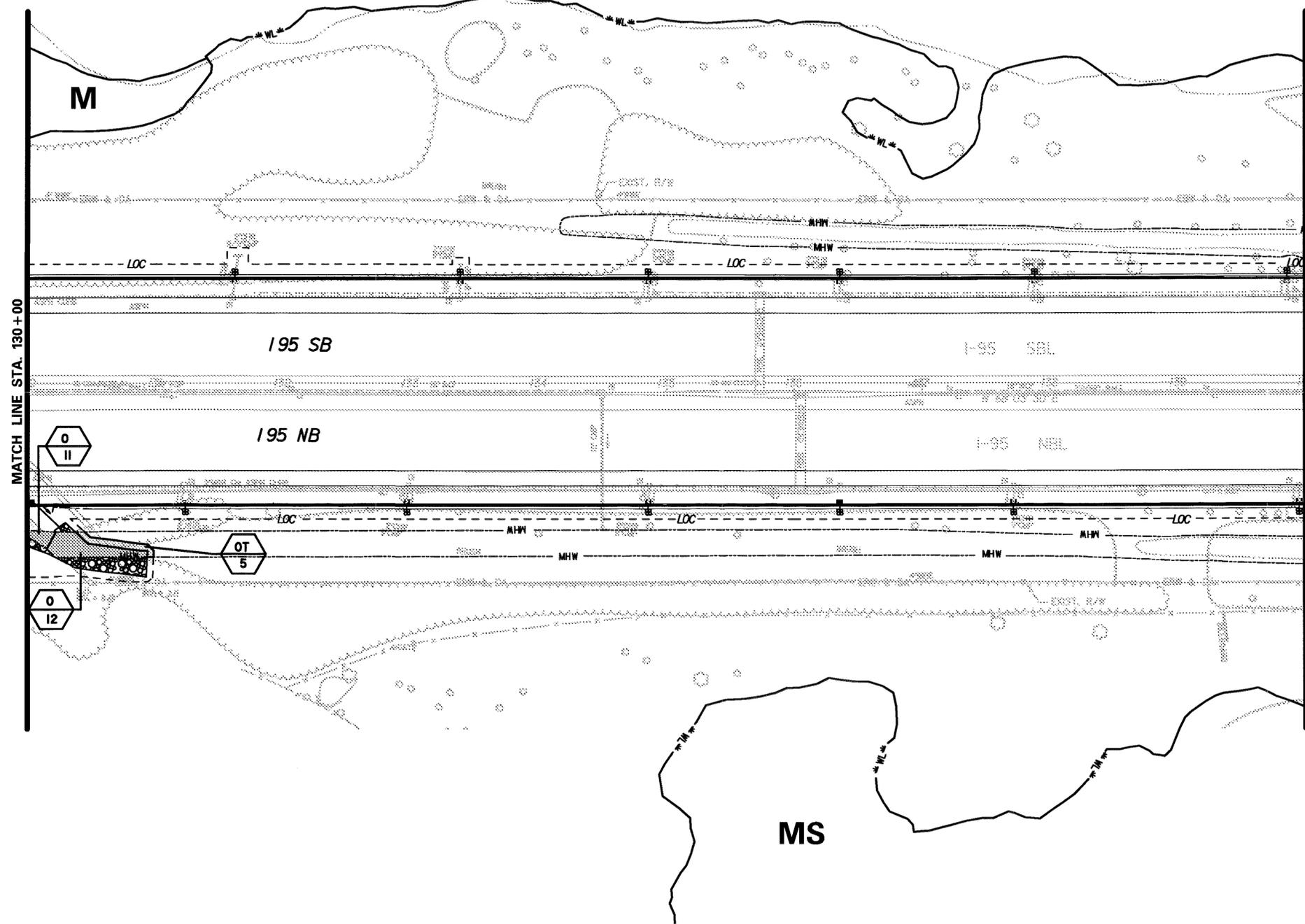
CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHEETS
95-090-01	NEW CASTLE	1M-N056(27)	21	27

DELAWARE TURNPIKE IMPROVEMENTS
SR 1 INTERCHANGE AND
195 MAINLINE WIDENING

REVISIONS

SCHEMATIC DESIGN PLANS

LM



NOTES:

- SHEETS PREPARED BY:
RUMMEL, KLEPPER & KAHL, LLP
NOVEMBER 2004
- WETLAND BOUNDARIES BASED ON DNREC MAPPING.
- DNREC WETLAND JURISDICTIONAL DETERMINATION CONDUCTED, FINAL PLANS SUBMITTED MARCH 2005.

LEGEND

- PERMANENT DNREC JURISDICTIONAL WETLAND/SUBAQUEOUS LANDS IMPACT
- TEMPORARY DNREC JURISDICTIONAL WETLAND/SUBAQUEOUS LANDS IMPACT

- MHW MEAN HIGH WATER
- OHW ORDINARY HIGH WATER
- WL WETLAND BOUNDARY
- WETLAND TYPE BOUNDARY

- IMPACT TYPE ID (SEE BELOW)
- IMPACT AREA LOCATION NUMBER
- T= TEMPORARY IMPACT
- W= DNREC WETLAND IMPACT
- O= DNREC SUBAQUEOUS LAND IMPACT

WETLAND TYPES

- M= MARSH
- LM= LOW MARSH
- MS= MARSH IN SPOIL AREAS
- T= TIDAL MUDFLATS

APPROVED PLANS
PERMIT # SP-014106
DATE 11/01/04
(22 SEP 2005 10:20 AM)

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CHKD.

DESIGN

PREL. TRACING

LOCATION OF IMPACT AREAS			
LOCATION	AREA (SQ. FEET)	AREA (ACRES)	VOLUME (CUBIC YARDS)
PERMANENT IMPACTS			
FILL AREA 01 3	50	0.0011	21
RIPRAP AREA 01 4	368	0.0084	24
FILL AREA 01 5	78	0.0018	25
RIPRAP AREA 01 6	973	0.0223	77
TOTAL	1469	0.0337	147
TEMPORARY IMPACTS			
E&S AREA 0T6	32	0.0007	N/A
E&S AREA 0T7	1160	0.0266	N/A
E&S AREA 0T8	60	0.0014	N/A
E&S AREA 0T9	1610	0.0370	N/A
E&S AREA 0T10	54	0.0012	N/A
TOTAL	2916	0.0669	N/A

ENVIRONMENTAL COMPLIANCE NOTES

SEE FIRST ENVIRONMENTAL COMPLIANCE SHEET

DNREC PERMIT IMPACTS & ENVIRONMENTAL COMPLIANCE PLAN



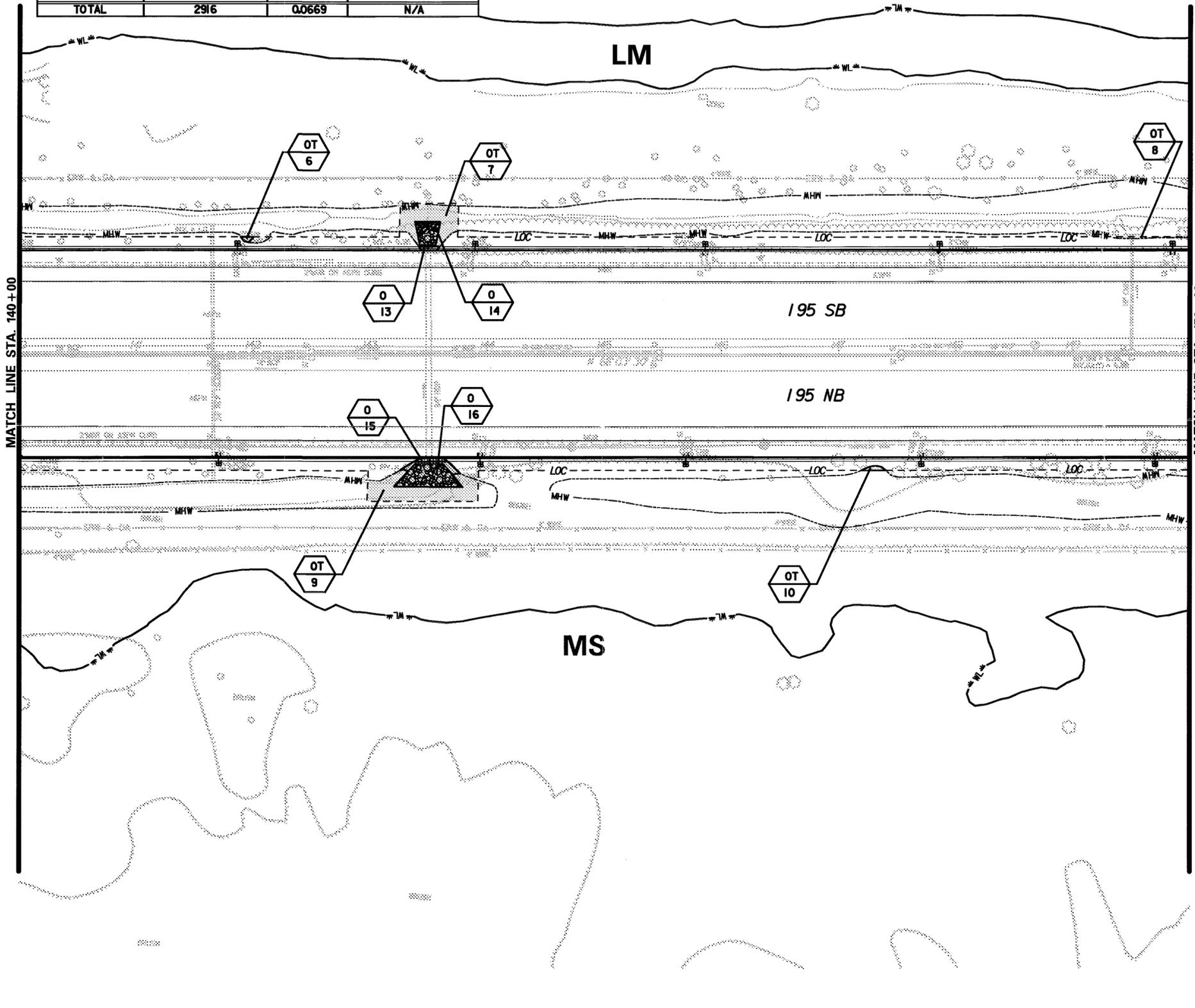
CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHEETS
95-090-01	NEW CASTLE	1M-N056(27)	22	27

DELAWARE TURNPIKE IMPROVEMENTS
SR 1 INTERCHANGE AND
I 95 MAINLINE WIDENING

REVISIONS

SCHEMATIC DESIGN PLANS

- NOTES:
1. SHEETS PREPARED BY:
RUMMEL, KLEPPER & KAHL, LLP
NOVEMBER 2004
 2. WETLAND BOUNDARIES BASED ON DNREC MAPPING.
 3. DNREC WETLAND JURISDICTIONAL DETERMINATION CONDUCTED, FINAL PLANS SUBMITTED MARCH 2005.



LEGEND

- PERMANENT DNREC JURISDICTIONAL WETLAND/SUBAQUEOUS LANDS IMPACT
- TEMPORARY DNREC JURISDICTIONAL WETLAND/SUBAQUEOUS LANDS IMPACT
- MHW - MEAN HIGH WATER
- OHW - ORDINARY HIGH WATER
- WL - WETLAND BOUNDARY
- WETLAND TYPE BOUNDARY

XX IMPACT TYPE ID (SEE BELOW)
00 IMPACT AREA LOCATION NUMBER

T= TEMPORARY IMPACT
W= DNREC WETLAND IMPACT
O= DNREC SUBAQUEOUS LAND IMPACT

WETLAND TYPES

M= MARSH
LM= LOW MARSH
MS= MARSH IN SPOIL AREAS
T= TIDAL MUDFLATS

NOTE: RIPRAP WILL BE BACKFILLED WITH NATIVE SALVAGED MATERIAL.

DATE: 11/21/05
APPROVED PLANS
PERMIT: SP-014/06
DATE: 11/21/05
DESIGNER: [Signature]

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PREL. TRACING _____ DESIGN _____ CHKD. _____

ENVIRONMENTAL COMPLIANCE NOTES

SEE FIRST ENVIRONMENTAL COMPLIANCE SHEET

DNREC PERMIT IMPACTS & ENVIRONMENTAL COMPLIANCE PLAN



CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHEETS
95-090-01	NEW CASTLE	1M-N056(27)	23	27

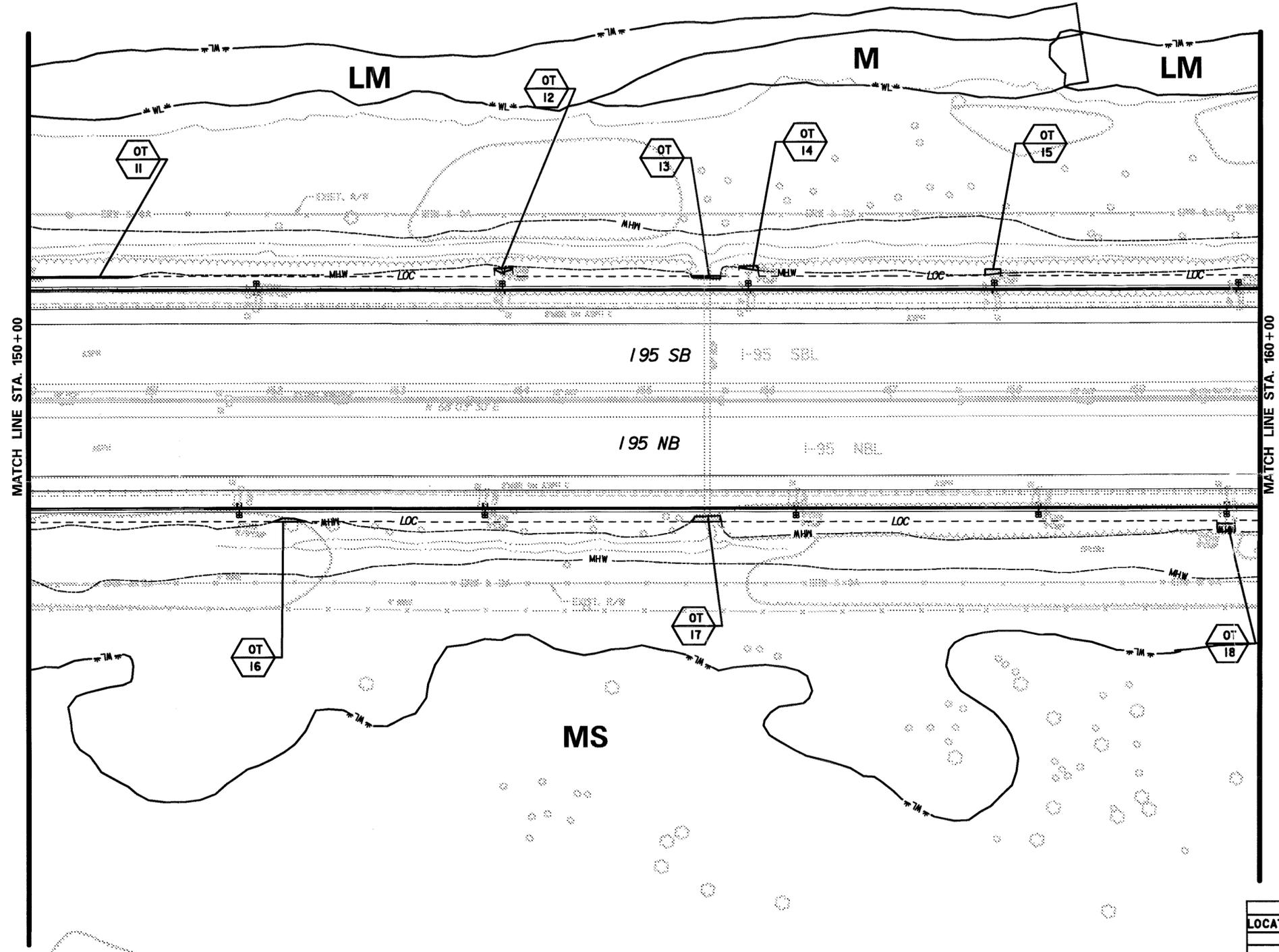
DELAWARE TURNPIKE IMPROVEMENTS
SR 1 INTERCHANGE AND
195 MAINLINE WIDENING

REVISIONS

SCHEMATIC DESIGN PLANS

NOTES:

1. SHEETS PREPARED BY:
RUMMEL, KLEPPER & KAHL, LLP
NOVEMBER 2004
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3. DNREC WETLAND JURISDICTIONAL DETERMINATION CONDUCTED, FINAL PLANS SUBMITTED MARCH 2005.



LEGEND

- PERMANENT DNREC JURISDICTIONAL WETLAND/SUBAQUEOUS LANDS IMPACT
- TEMPORARY DNREC JURISDICTIONAL WETLAND/SUBAQUEOUS LANDS IMPACT
- MHW MEAN HIGH WATER
- OHW ORDINARY HIGH WATER
- WL WETLAND BOUNDARY
- WETLAND TYPE BOUNDARY

- XX IMPACT TYPE ID (SEE BELOW)
- IMPACT AREA LOCATION NUMBER
- T= TEMPORARY IMPACT
- W= DNREC WETLAND IMPACT
- O= DNREC SUBAQUEOUS LAND IMPACT

WETLAND TYPES

- M= MARSH
- LM= LOW MARSH
- MS= MARSH IN SPOIL AREAS
- T= TIDAL MUDFLATS

APPROVED PLANS
PERMIT NO. 2004-10-10
DATE 11/24/06
1682

LOCATION OF IMPACT AREAS			
LOCATION	AREA (SQUARE FEET)	AREA (ACRES)	VOLUME (CUBIC YARDS)
PERMANENT IMPACTS			
TOTAL	0	0.0000	0
TEMPORARY IMPACTS			
E&S AREA OT11	58	0.0013	N/A
E&S AREA OT12	36	0.0008	N/A
E&S AREA OT13	38	0.0009	N/A
E&S AREA OT14	36	0.0008	N/A
E&S AREA OT15	49	0.0011	N/A
E&S AREA OT16	49	0.0011	N/A
E&S AREA OT17	99	0.0023	N/A
E&S AREA OT18	96	0.0022	N/A
TOTAL	461	0.0106	N/A

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PREL. TRACING DESIGN CHKD.

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DELAWARE TURNPIKE IMPROVEMENTS
SR 1 INTERCHANGE AND
I 95 MAINLINE WIDENING

REVISIONS

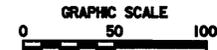
SCHEMATIC DESIGN PLANS

- NOTES:
1. SHEETS PREPARED BY:
RUMMEL, KLEPPER & KAHL, LLP
NOVEMBER 2004
 2. WETLAND BOUNDARIES BASED ON DNREC MAPPING.
 3. DNREC WETLAND JURISDICTIONAL DETERMINATION
CONDUCTED, FINAL PLANS SUBMITTED MARCH 2005.

DNREC PERMIT IMPACTS &
ENVIRONMENTAL COMPLIANCE PLAN

ENVIRONMENTAL COMPLIANCE NOTES

SEE FIRST ENVIRONMENTAL COMPLIANCE SHEET



LOCATION OF IMPACT AREAS			
LOCATION	AREA (SQUARE FEET)	AREA (ACRES)	VOLUME (CUBIC YARDS)
PERMANENT IMPACTS			
TOTAL	0	0	0
TEMPORARY IMPACTS			
E&S AREA OT19	58	0.0013	N/A
E&S AREA OT20	12	0.0003	N/A
E&S AREA OT21	21	0.0005	N/A
E&S AREA OT22	55	0.0013	N/A
TOTAL	146	0.0034	N/A

LEGEND

PERMANENT DNREC JURISDICTIONAL WETLAND/SUBAQUEOUS LANDS IMPACT

TEMPORARY DNREC JURISDICTIONAL WETLAND/SUBAQUEOUS LANDS IMPACT

MHW MEAN HIGH WATER

OHW ORDINARY HIGH WATER

WL WETLAND BOUNDARY

WETLAND TYPE BOUNDARY

XX IMPACT TYPE ID (SEE BELOW)

●● IMPACT AREA LOCATION NUMBER

T= TEMPORARY IMPACT

W= DNREC WETLAND IMPACT

O= DNREC SUBAQUEOUS LAND IMPACT

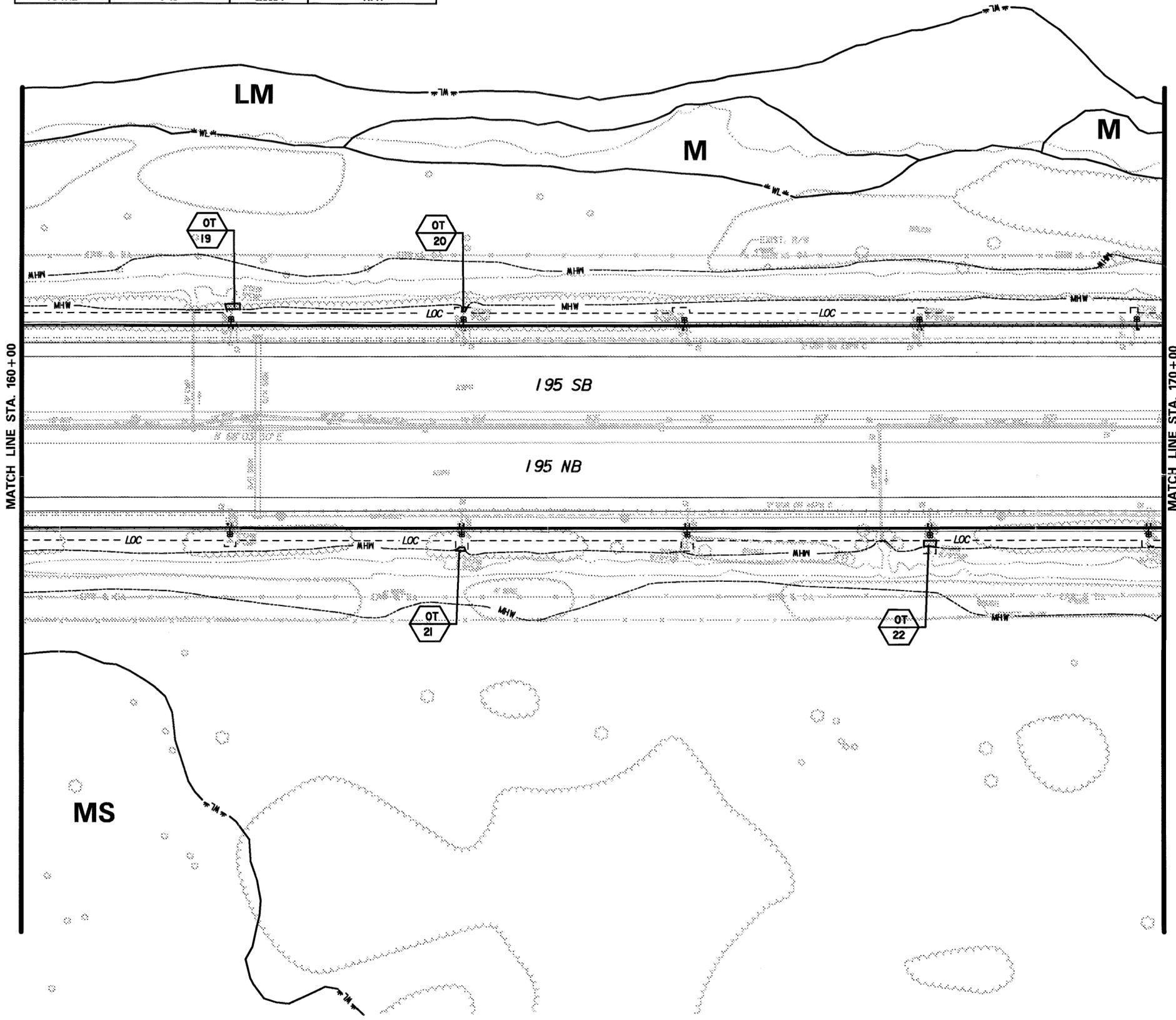
WETLAND TYPES

M= MARSH

LM= LOW MARSH

MS= MARSH IN SPOIL AREAS

T= TIDAL MUDFLATS



MATCH LINE STA. 160+00

MATCH LINE STA. 170+00

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CHKD.

DESIGN

PREL. TRACING

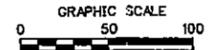
WGLS
APPROVED PLANS
PERMIT # SP-014106
DATE 11/21/05
GEEPER, L. W. (SIGNED)

CONTRACT	COUNTY	F.A.P. NO.	SHEET NO.	TOTAL SHEETS
			25	
REVISIONS				

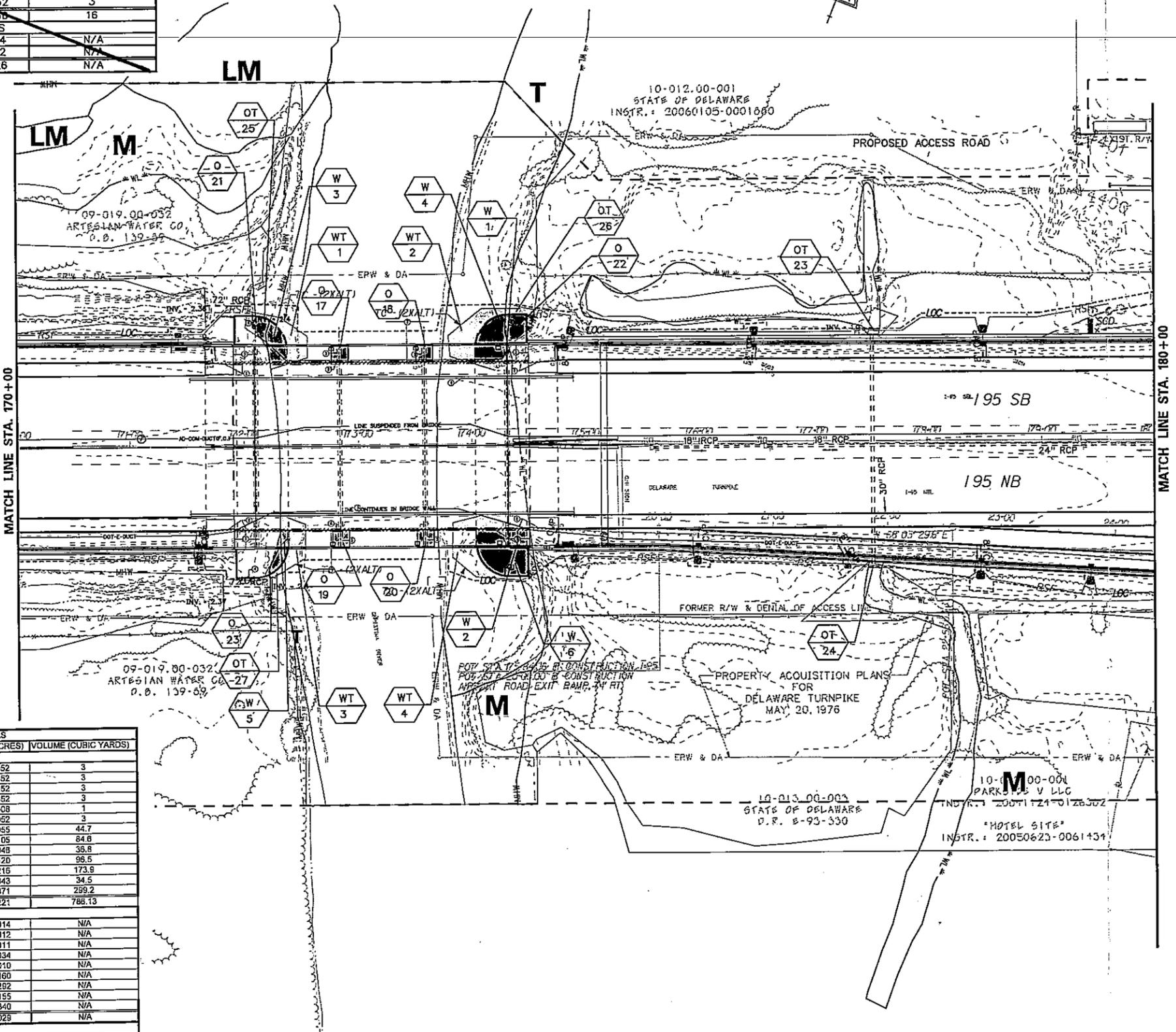
LOCATION OF IMPACT AREAS			
LOCATION	AREA (SQUARE FEET)	AREA (ACRES)	VOLUME (CUBIC YARDS)
PERMANENT IMPACTS			
FILL AREA (PILES) O17	225	0.0052	3
FILL AREA (PILES) O18	225	0.0052	3
FILL AREA (PILES) O19	225	0.0052	3
FILL AREA (PILES) O20	225	0.0052	3
FILL AREA W1	35	0.0008	1
FILL AREA W2	225	0.0052	3
TOTAL	1160	0.0266	16
TEMPORARY IMPACTS			
E&S AREA OT23	62	0.0014	N/A
E&S AREA OT24	53	0.0012	N/A
TOTAL	115	0.0026	N/A

ENVIRONMENTAL COMPLIANCE NOTES
SEE FIRST ENVIRONMENTAL COMPLIANCE SHEET

DNREC PERMIT IMPACTS & ENVIRONMENTAL COMPLIANCE PLAN



WETLANDS
 MAY 31 2006
 RECEIVED



- NOTES:
- SHEETS PREPARED BY: RUMMEL, KLEPPER & KAHL, LLP NOVEMBER 2004.
 - WETLAND BOUNDARIES BASED ON DNREC MAPPING.
 - DNREC WETLAND JURISDICTIONAL DETERMINATION CONDUCTED, FINAL PLANS SUBMITTED MARCH 2005.

LEGEND

- PERMANENT DNREC JURISDICTIONAL WETLAND/SUBAQUEOUS LANDS IMPACT
- TEMPORARY DNREC JURISDICTIONAL WETLAND/SUBAQUEOUS LANDS IMPACT
- MHW --- MEAN HIGH WATER
- OHW --- ORDINARY HIGH WATER
- WL --- WETLAND BOUNDARY
- WT --- WETLAND TYPE BOUNDARY

XX IMPACT TYPE ID (SEE BELOW)
 .. IMPACT AREA LOCATION NUMBER

T- TEMPORARY IMPACT
 W- DNREC WETLAND IMPACT
 O- DNREC SUBAQUEOUS LAND IMPACT

WETLAND TYPES

- M- MARSH
- LM- LOW MARSH
- MS- MARSH IN SPOIL AREAS
- T- TIDAL MUDFLATS

LOCATION OF IMPACT AREAS			
LOCATION	AREA (SQUARE FEET)	AREA (ACRES)	VOLUME (CUBIC YARDS)
PERMANENT IMPACTS			
FILL AREA (PILES) O17	225.0	0.0052	3
FILL AREA (PILES) O18	225.0	0.0052	3
FILL AREA (PILES) O19	225.0	0.0052	3
FILL AREA (PILES) O20	225.0	0.0052	3
FILL AREA W1	35.0	0.0008	1
FILL AREA W2	225.0	0.0052	3
FILL AREA O21	241.2	0.0055	44.7
FILL AREA O22	467.1	0.0105	84.6
FILL AREA O23	198.7	0.0045	35.8
FILL AREA W3	520.8	0.0120	95.5
FILL AREA W4	938.9	0.0215	173.9
FILL AREA W5	188.3	0.0043	34.5
FILL AREA W6	1615.7	0.0371	299.2
TOTAL	5318.7	0.1221	788.13
TEMPORARY IMPACTS			
E&S AREA OT23	62.0	0.0014	N/A
E&S AREA OT24	53.0	0.0012	N/A
E&S Turbidity Curtain OT25	48.3	0.0011	N/A
E&S Turbidity Curtain OT26	41.8	0.0009	N/A
E&S Turbidity Curtain OT27	696.7	0.0160	N/A
E&S Turbidity Curtain WT1	1273.5	0.0292	N/A
E&S Turbidity Curtain WT2	674.8	0.0155	N/A
E&S Turbidity Curtain WT3	1482.2	0.0340	N/A
E&S Turbidity Curtain WT4	4481.6	0.1028	N/A
TOTAL	4158.7	0.0955	770.1
PERMANENT IMPACT INCREASE	4365.0	0.1002	N/A
TEMPORARY IMPACT INCREASE			

W.S.L.S.
APPROVED PLANS
 PERMIT # SP-014/06
WE-388/06
 DATE 11/21/06
 (SEE PERMIT CONDITIONS)

PREL. TRACING DESIGN CHKD